

THOMASON
CIVIL ENGINEERING COLLEGE
CALENDAR.

1897.

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Thomason Q. C. College Calendar.

APRIL, 1897.

[Note—(1), First year; (2), Second year Students].

Date.	Day of the week.	General and Office	CLASSES.		
			Engineers.	Upper Subordinates.	Lower Subordinates.
1	Th	Public Accountant of Establishment sent to Assistant-General, T. W. P. and Ogdin. (Cancel Leave statement to Government.	Session begins (1) & (2) Higher Standard Examinations commence (On-estimate Recorders)	Session begins (3)	Session begins (2).
2	F				
3	S				
4	S	1st Sun in Lent			
5	M				
6	T				
7	W	Leave Well to Accountant General, A. W. P. and Ogdin		Earthwork Estimating Exam (2)	
8	Th				
9	F				
10	S				
11	S	Feast Sunday Hardwar Fair, H			
12	M				
13	T				
14	W				
15	Th	Maundy Thursday			
16	F	Good Friday			
17	S				
18	S	Easter Sunday			
19	M				
20	T				
21	W				
22	Th				
23	F				
24	S				
25	S	1st Sun after Easter			
26	M				
27	T				
28	W				
29	Th				
30	F				

		ALACRIS		
Date	Days in this week	General and Other	Beginner	Upper Subordinate
				Lower Subordinate
1	S	Statistical Return.		Project given out (S).
2	S	2nd Sun. after Easter.	Building Materials & Roadwork Exam. (1) Buildings and Bridges Exam. (2)	
3	M	Return of ship passengers required.		
4	T			
5	W			
6	Th			
7	F	Send Roll to Assistant-General, W. W. F. and Oudk.	Exam. Exercise Exam (1) and (2)	
8	S		Drawing Exam (2)	
9	S	3rd Sun. after Easter		
10	M		Co-ordinate Geometry Exam (2) ²	
11	T			
12	W			Trigonometry Exam (3)
13	Th	Id-ul-Ezha, M.		
14	F			
15	S			
16	S	4th Sun. after Easter		
17	M			
18	T			Estimating Ex (
19	W			II Estimating Exam (3,
20	Th			
21	F			
22	S			
23	S	Regulation holiday		
24	M	Good Friday	Applied Mechanics Exam II (3)	
25	T	Papers for Entrance Examination Regd. for 1st Class posted.	Carpentry Exam (1)	
26	W			
27	Th	Ascension Day		
28	F			
29	S			
30	S	Sun. after Ascension		
31	M			

Date	Days of the week	General and Office	General		
			Engineers.	Upper Subordinate.	Lower Subordinate.
1	T				
2	W				
3	Th				
4	F				
5	S		Drawing Exam (1)		
6	S	White-Sunday Pentecost.			
7	M	Acad Hall to Accountant-General N.W. F and Outh.	(Roads and Railway) Exam (3) Mechanics Part I. Exam (1)		
8	T				
9	W	Entrance Exam. Engineers Class.			
10	Th	Assessors, H.			
11	F				
12	S	McArthur, M.			
13	S	Trinity Sunday			
14	M		Masonry Exam (1)		
15	T	Annual Accounts to Accountant-General N.W. F and Outh.			
16	W			III Estimating Exam (2)	
17	Th				
18	F				
19	S		Drawing Exam (2)		
20	S	1st Sun. after Trin. Assession of Queen Victoria			
21	M				
22	T				
23	W			Applied Mechanics Exam (2)	
24	Th	Midsummer Day			Ferrotyping Exam. (2)
25	F				
26	S				
27	S	3rd Sun. after Trin.			
28	M	Queen Victoria crowned.			
29	T				
30	W			Measurement Exam. (3)	

Day	Day of the Week	General and Office		Upper Subordinate	Lower Subordinate
1	Th	General Instructions of London syllabus.			
2	F	Write for Examination Board Memo.	Exam. Science Exam (1) & (2)		
3	S	State	Drawing Exam (7)		
4	S	3rd Sun. after			
5	M		Mathematics Calculus Exam (3)		Surveying Exam (2)
6	T		Arithmetic Exam (1)		
7	W	Write Roll to Accountant-General, S. W. P. and Clerk.		IV Exam (3)	
8	Th				
9	F				
10	S		Estimation Course Exam (1)		
11	S	4th Sun. after Trin			
12	M		Hydraulic Works Exam (3)		
13	T				
14	W		Ferrotyp Exam (3)	Ferrotyp Exam (3)	
15	Th				Trigon Exam
16	F				
17	S				
18	S	5th Sun. after Trin			
19	M		III Applied Mechanics Exam. (2)		
20	T				
21	W			Bridges Exam (2)	
22	Th				
23	F				
24	S				
25	S	6th Sun. after Trin			
26	M				
27	T				
28	W			Drawing Exam (2)	
29	Th				
30	F				
31	S		Drawing given in (2)	Project given in (2)	

Date	Day of the week	General and Office	Classes		
			Engineer	Upper Subordinate	Lower Subordinate
1	S	7th Sun. after Trin.	Mechanism Part II. Exam (1) Integral Calculus Exam. (1).		
2	M				
3	T				
4	W				
5	Th				
6	F		Drawing Exam (1) & (2)		
7	S	(Rest Hall to Accountant-General E.W. P and Cash.			
8	S	8th Sun. after Trin.			
9	M				
10	T				
11	W				
12	Th				
13	F	(Apply for Position, R. S. W. W. J. M.		Applied Mechanics Exam (3)	
14	S		Paper Science Exam (1) & (2) I Estimating Ex (1)		
15	S	9th Sun. after Trin.			
16	M	Vacation commences			
17	T				
18	W				
19	Th				
20	F	Janam Ashwini, H.			
21	S				
22	S	10th Sun. after Trin.			
23	M				
24	T				
25	W				
26	Th				
27	F				
28	S				
29	S	11th Sun. after Trin.			
30	M				
31	T				

Date	Day of Week	General and Office	CLASS		
			Engineer.	Upper Subordinate.	Lower Subordi.
1	W				
2	Th	{ Adj. Sessions, 10 A. M. to 12 M. in the forenoon, 2 P. M. to 4 P. M. in the afternoon.			
3	F		M	M	M
4	S				
5	S	18th Sun. after Trin.			
6	M				
7	T	{ Next Hall to Accountant-General, H. W. T. and Office.	O	O	O
8	W				
9	Th	Account Chamber, H			
10	F		I	I	I
11	S				
12	S	18th Sun. after Trin			
13	M				
14	T		H	H	H
15	W				
16	Th		A	A	A
17	F				
18	S				
19	S	19th Sun. after Trin			
20	M				
21	T		O	O	O
22	W				
23	Th		A	A	A
24	F				
25	S				
26	S	19th Sun. after Trin			
27	M		A	A	A
28	T				
29	W				
30	Th				

Date		Day of Week	Command and Office.	Engineer.	Upper Subordinate.	Lower Subordinate.
1			Annual Leave of Travel Nantes (France) 10 days Sailed 10th March 1900 Sailed 10th March 1900			
2						
3			16th Sun after Trin.			
4						
5						
6						
7			Next Roll to Appointment Capt. General, N.W.			
8						
9						
10			17th Sun after Trin.			
11						
12						
13						
14			Students	all return (1) Ground (2) Training (3) 100 m. march	from	Vacation.
15						
16			18th Sun after Trin.			
17				Topic to be given out (2)		
18						
19						
20						
21						
22				Expl Science Exam (1) & (2)	Ground Training be- gins (3).	Surveys begin
23						
24			19th Sun after Trin.			
25			Dracut, H.	Ground Training Exam (3)		
26				Survey commences (5)		
27						
28						
29						
30						
31			20th Sun after Trin.			

Date	Day of the week	Notes and Dates.	CLASSES.		
			Engineers.	Upper	Lower Subordinate
1	M	{ Northern Upper and Lower Administration, English and Native Military Survey Course join.			Railways E Exam. (2).
2	T				
3	W				
4	Th				
5	F	{ Superior Accts. Branch and 4th Grade Accts. Branch Exam. passed.		Leveling begins (3)	
6	S				
7	S	21st Sun. after Trinity			
8	M	{ Next Hall to Account- ant-General. N.W. P and Cash Prize of Silver Dish day	II Estimating Exam (1)		
9	T				
10	W				
11	Th				
12	F				
13	S				
14	S	22nd Sun. after Trinity			
15	M	{ Award taken for Survey inspired from England.	Canna Cautions Exam (1)		
16	T				Applied Machine Exam. ■ .
17	W			Railways Exam (3)	
18	Th				
19	F				
20	S				
21	S	23rd Sun. after Trinity			
22	M	{ Entrance Exam. Superior Accts. Branch and 4th Grade Accts. Ex			
23	T				
24	W				
25	Th				
26	F				
27	S				Mechanics Exam (
28	S	Advent Sunday			
29	M				
30	T				

Days of the week	No. of the week	Classes		
		Engineer	Upper Subordinate.	Lower Subordinate.
1	S	No of Indian Voluntary Roll of Transition of Sur- geons to the Western India.		
2	T		English Exam (1)	English Exam. (1).
3	F		Conforming to	
4	S			
5	S	2nd Sun. 1st Advent		
6	M	Sent Roll to Account sub-General, N.W. F. and Oudh. Confidential Report to H. G. Oudh.	Estimating (1)	
7	T			
8	W		Surveying Exam. (2)	Estimating (2)
9	Th			
10	F			
11	S			
12	S	3rd Sun. 1st Advent		
13	M	Letter to Govt. about posting of Assistant Commissioners to India to completion of Appen- dix 1000	I Applied Mechan- Exam (1)	
14	T			
15	W		Geometry Exam (1)	Arithmetic Exam. (1)
16	Th			Surveying Exam (2)
17	F			
18	S			
19	S	4th Sun. 1st Advent		
20	M		IV Estimating Exam (2)	
21	T			
22	W			
23	Th			
24	F			
25	S	5th Sun. 1st Advent		
26	S	1st Sun. after Christmas		
27	M			
28	T			
29	W			
30	Th			
31	F		Survey given in (2)	

Date.	Day of the week.	General and Office.	Classes.		
			Engineer.	Upper Subordinates.	Lower
1	S	New Year's Day			
2	S	2nd Sun. after Christmas	Curves and straightening adjustments (1). Astronomy course (2). Compassing (3).	Curves begin (3).	
3	M	Ball of Hon. Gen. Nathan			
4	T	Ball of Hon. Gen. Nathan			
5	W	General Leave Service			
6	Th	Ball of Hon. Gen. Nathan			
7	F	Ball of Hon. Gen. Nathan		Ground Tracing Exam (2)	
8	S	Ball of Hon. Gen. Nathan		Building Materials Exam (1)	
9	S	1st Sun. after Epiph.			
10	M				
11	T				
12	W			Roads Exam. (2)	
13	Th				
14	F				Exam (3)
15	S	1st Sun. after Epiph.	Drawings attached to August given to (2)		
16	S	2nd Sun. after Epiph.			
17	M		Hydro-Mechanics (3).		
18	T				
19	W			Drawing Exam. (2)	
20	Th			Earthwork Exam. (1)	
21	F				Surveying Instruments Exam. (1)
22	S				
23	S	3rd Sun. after Epiph.			
24	M				
25	T				
26	W			Adjustment of Instruments Exam. (1).	
27	Th				
28	F				
29	S				

FEBRUARY, 1900

Date	Days of the week	General and Office	Registrar.	Upper Subordinates	Lower Subordinates
			Curran and Instruments Exam. (1).	Algebra Exam. (1)	Algebra Exam. (1).
1	■				
2	W				
3	Th				
4	F				
5	S				
6	S	Septuagesima.			
7	M	{ Roll to General M-W Cath.	Notes-books given in (1) & (3).	Notes-books given in (3).	
8	T				Hydro-Mechanics Exam. (3).
9	W				
10	Th				
11	■				
12	S				
13	S	Sexagesima.			
14	■		□ Applied Mechanics Exam. (1) Projects to be given in (2)	Adjustment of Instruments (3)	
15	■				
16	■			Hydro-Mechanics Exam. (1).	Phylography Exam. (1).
17	Th				Hydraulic Works Exam. (3).
18	F	{ Last Friday of Lent, M	{ Section Surveys given in (1) Drawings given in (1).		
19	S	Quinquagesima.			
20	S				
21	M				
22	■	Shrove Tuesday			
23	W	{ Ash Wednesday Id-ul-Fitr, M.			
24	■				
25	■				
26	S				
27	S	Quadragesima 1st Sun. in Lent			
28	M				

Date	Day of the Week	General and Other.	Classes.		
			Engineers.	Upper Subordinate.	Lower Subordinate.
1	T		BRIEF EXAMINATION (1)	(5)	Mathematical Exam. (1)
2	W			Carpentry Exam. (1)	
3	Th				
4	F				
5	S				
6	S	2nd Sun. in Lent			
7	M	(Exam. Roll in Account and General) 2d W. F. and Crafts.			
8	T	Roll, H			
9	W				
10	Th				
11	F				
12	S				
13	S	3rd Sun. in Lent.			
14	M				
15	T				Drawing Exam. (1)
16	W			Mechanics Exam. (1)	
17	Th				
18	F				
19	S				
20	S	4th Sun. in Lent			
21	M				
22	T				
23	W			Mechanics Exam. (1)	
24	Th				
25	F				
26	S				
27	S	5th Sun. in Lent.			
28	M				
29	T				Surveying - Leave
30	W				
31	Th	(Exam. Roll in Account and General) 3d W. F. and Crafts.	Distribution of Papers and Certificates.		

THOMSON CIVIL ENGINEERING COLLEGE.

COMMITTEE OF MANAGEMENT.

THE CHIEF ENGINEER IN CHARGE	
WORKS DEPARTMENT, BOMBAY AND CANNIA BRANCH,	
AND DIRECTOR OF PUBLIC INSTRUCTIONS, N-W PROVINCES	President.
AND CHIEF,	
MANAGER, BOMBAY AND CANNIA RAILWAY.	
G. WINDMILL, ESQ., SUPERINTENDENT, BOMBAY	
ROBINSON RAILWAY, (on furlough).	
THE PRESIDENT OF THOMSON COLLEGE,	Secretary

COLLEGE STAFF.

1884 March 1887.

PRINCIPAL, LEUT-COLONEL J. CLIBBORN, I.S.C., B.A., L.C.B., T.C.D.
 Assistant { First—CAPT E. D. BULLER, B.E., B.A., T.C.D.
 Principals { Second—LEUT H. B. D. CAMPBELL, R.E.

Masters of Upper Subordinate Class,	CAPT J. H. FAIRLEY, . . .	First Master.
	CONDR J. O'NEILL, . . .	Photo Instructor.
	CONDR G. BULTON, . . .	Second Master and Supt. of Gardens & Buildings.
	" C. J. GYDE, . . .	Third Assistant Master
	" H. V. FRANCHI, . . .	Fourth Assistant Master

Upper & Lower Subordinate	G. T. SPARKS, ESQ., . . .	Instructor of Drawing
---------------------------	---------------------------	-----------------------

Native Masters, Lower Subordinate Class,	RAJEND PRASAD, . . .	Head Master.
	RAJEND LAL, . . .	First Assistant Master.
	RAJEND LAL, . . .	Second Assistant Master.
	RAJEND BHO, . . .	Third Assistant Master.
	RAJEND HASIN, . . .	Fourth Assistant Master.
	RAJEND NATH, . . .	Fifth Assistant Master.

Superintendent of Press, Printer and Reader,	SEKOR, G. H.
---	-----------	--------------

Superintendent of Office, Head Clerk, Caretaker, Book Depot, Laborer,	H. J. L. GREGAN. BENARI MR. J. H. MAN.
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COLLEGE STAFF 1847-1897.

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COL. SIR P. T. CAULLEY, K.C.B., B.A.
 MAJ.-GENL. SIR W. HAYES, K.C.B., R.E.
 COL. BAIRD SMITH, C.B., R.E.
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COL. J. O. MATHER, R.E.
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 T. H. WICKES, Esq.
 HON'BLE J. G. H. GLAGH, C.K.E.
 HON'BLE C. W. ODLING.

PRINCIPALS

MAJ. R. MACLAGAN, R.E., 1847-1853,
 3 months and 1853, 4 months
 MAJOR OLDFIELD, R.E., (Off) 1853-54
 COL. E. C. S. WILLIAMS, R.E., 1854
 COL. J. G. BROWN, R.E., 1854-1871.
 COL. J. M. LANG, R.E., 1871-1877
 MAJOR A. CUNNINGHAM, R.E., 1877.

J. H. C. HARRISON, R.E. (Off),
 3 months and 1853, 4 months
 LIEUT.-COL. A. M. BRANFORTH, R.E.,
 1877-1891
 COL. F. D. M. BROWN, V.O., 1891-92
 MAJOR E. D. BOLLIN, R.E., (Off)
 1892, 6 months.
 LT.-COL. J. CLIBBORN, R.E., 1892,
 in office

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LT. WALKER, R.E.,
 LT. MONROE, R.E., 1855, 6 months
 LT. W. T. CHENEY, R.E., 1855 & 1858-59
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 LT. H. MARLB, R.E., 1854-1859.
 LT. JEFFERY, R.E., 1857-1859
 LT. A. M. BRANFORTH, R.E., 1859-1861
 LT. J. M. WESTMORELAND, R.E., 1861-63
 LT. C. C. SCOTT MONCRIEFF, R.E.,
 1863-1864
 LT. C. H. LUND, R.E., 1864-1864
 LT. J. M. BROWN, R.E., 1864-1864.
 LT. L. CUNWAY GORDON, R.E., 1865-66
 LT. F. FINEWELL, R.E., 1865-1868.
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 LT. W. B. S. BISHOP, R.E., 1868-1870
 LT. C. S. BRANFORTH, R.E., 1869-1874.
 LT. R. E. FULFORD, R.E., 1874

LT. F. M. MAXWELL, R.E., 1875, 5 months
 MAJ. M. H. GORDON, R.E., 1875-1877
 LT. S. M. MAYCOCK, R.E., 1874-1878 and
 1879-1881
 CAPT. A. CUNNINGHAM, R.E., 1881-82,
 and 1870-1880
 CAPT. G. C. OWEN, R.E., 1877, 3 m.,
 1878, 3 m., 1880, 3 m., and 1881-1882.
 CAPT. R. BLOTT, R.E., 1882-1880
 CAPT. R. V. PHILLIPS, R.E., 1883, 6
 months, 1883-1884, 1887-1889
 MAJOR J. H. C. HARRISON, R.E., 1877-79,
 1881-83, 1884-87 and 1890-93
 LT. R. F. BOND, R.E., 1884-86.
 LT. F. J. A. BOND, R.E., 1886-1888.
 CAPT. R. D. BULLOCK, R.E., B.A., 1888-
 1894 and 1895, in office
 LT. H. B. D. CAMPBELL, 1895, 6 months,
 1896, in office

H. B. MIDDLECOCK, Esq., F.G.S., 1855-62
 LT. C. S. BRANFORTH, R.E., (Off) 1871
 MAJ. MAYCOCK, R.E., (Off) 1878-79
 MAJ. G. C. OWEN, R.E., (Off) 1888

J. H. C. HARRISON, R.E., (Off)
 1885, 6 months.
 MURRAY THOMSON, Esq., M.D., F.R.S.E.,
 1884-1871, 1872-76, 1876-1883 and 1884-
 1885

Duties taken up by Assistant Principal from

PROFESSORS OF

1. ENGLISH, Esq., M.A., 1883-1879

1. CAPT. A. CUNNINGHAM, R.E.,

Duties taken up again by Assistant Principal from 1872.

HEAD MASTERS

CAPT. M. BISHAM, 1847-1853.
 J. GILCHRIST, Esq.,

W. BOLTON, Esq.,
 M. KEAT, 1880-1887

HEAD MASTERS—(continued).

H. H. H. 1872, J. H. FAIRLEY, 1872 to 1880.
 PROFESSOR AND INSTRUCTOR OF
 W. SCOTLAND, Esq., 1848-1878.
 SUB-CONDE J. O'NEILL, (Offs) 1880

MASTERS.

SERGT. W. McDOWELL, 1880-1881
 " G. LARSEN, 1885-1886
 MR. A. B. R. WINDHILL, 1886, 7 months.
 SERGT. A. LEIGH, 1886, 8 months.
 " J. JOHNSON, 1887-1888
 " A. PARKER, 1888-1889
 " W. WILFORD, 1889-1890
 LON-CONDE F. A. CLIFF, 1890-1891
 CORP. R. GRAY, 1891-1892
 SER J. LOW, 1892-1893
 " L. L. L. 1893-1894
 CORP. J. JOHNSON, 1894-1895
 SERGT. E. EDWARDS, part of 1894
 LON-SERGT. C. SCOTT, part of 1894
 " F. W. HART, 1891-1892
 " J. W. HART, 1892-1893
 " W. H. BARTON, 1893-1894
 " E. G. 1894-1895
 " W. H. TIVET, 1895-1896
 " W. 1896-1897
 SERGT. A. D. McDONOUGH, 1897-1898
 " J. TAYLOR, 1898-1899
 LON-SERGT. J. H. FAIRLEY, 1874, 1875 to 1883, 1884 to 1896
 CONDE J. O'NEILL, 1877-1889, and 1890, in office.
 SERGT. C. BOLTON, 1890 and 1891, in office.
 " J. GIBB, 1896, in office.
 " J. V. FRANKS, 1896, in office.

NATIVE MASTERS.

MAHAT LAL, 1848-1868
 RAM CHANDRA, 1868-1871
 MANOHARAN CHATTOPADHYAY, 1871-1872
 MAHAT LAL, 1872-1873
 GANESH LAL, 1873-1874 and 1881-1871.
 MASUR ULLAH, 1874-1875
 ABDUR RAHMAN, 1880-1883
 ABDAR BEG, 1884-1887
 PRABHU PRASAD, 1887-1888
 MAHAT LAL, 1888-1889
 MADAD HUBAIN, 1889-1890
 CHAND, 1890-1891
 FAKH-UD-DIN, 1891-1892
 MAHAT LAL, 1892-1893
 TAJAMMAL HUSAIN, 1893-1894
 MAHAT LAL, 1894-1895
 ARDUR GANI, 1895-1896
 MAHAT LAL, 1896-1897
 MAHAT LAL, 1897-1898
 MAHAT LAL, 1898-1899 and 1873-1874.
 KUNA MAL, 1899-1872
 BAHADUR, 1871-1872

**GOVERNMENT NOTIFICATIONS ANNOUNCING THE
ESTABLISHMENT OF THE COLLEGE, NAMING
IT, AND INSTITUTING THE THOMASON
SCHOLARSHIP.**

GENERAL REGULATIONS

No. 111 of 1847.

Head Quarters, the 11th November, 1847.

The Lieutenant-Governor directs the publication, for general information, of the following *Prospectus* of a College for instruction in Civil Engineering, which is now established at Roorkhee, and of which Lieut. R. Macdagan, Engineer, has been appointed Principal.

PROSPECTUS OF THE CIVIL ENGINEERING COLLEGE AT ROORKEE.

1st. The College is designed to give Theoretical and Practical instruction in Civil Engineering to Europeans and Natives, with a view to their employment on the Public Works of the Country, according to their qualifications and the requirements of the Service.

The Director of the Ganges Canal will be *ex-officio* Visitor of the College.

There will be three Departments in the College, in each of which will be a number of Stipendiary Students, for whom quarters will be provided.

First Department—Candidates for the appointment of Sub-Engineer, as constituted by the Orders of Government of the 10th October 1847.

Persons admitted into this Department must be under the age of 25. They must have previously acquired the ability to read and write with ease and accuracy in the English language, and a knowledge of Geometry, Algebra, Mensuration, Plane and Spherical Trigonometry, Conic Sections and Statics.

The number of Stipendiary Students in this Department is restricted to eight, who will be selected only with the sanction of the Government.

7th. Scholars from any of the Government Colleges, if properly qualified, may be admitted to this Department, and travelling allowance may be granted as established. They will therefore receive, besides free quarters, an allowance of one-fourth of the Scholarship allowance to cover their expenses, or such increase as will be necessary. Stipend of Rs. 40 Rupees per month. Properly qualified persons not attached to any Government College will receive a monthly stipend of Rs. 40 Rupees in addition to free quarters.

Candidates for these Stipends are desired to apply to the Superintendent Engineer & Executive Officers in the Central North-Western Provinces and Punjab Division, Superintending and Executive Officers of Canals and Heads of Principals of Agra, Delhi and Benares Colleges. Applications to the Principal of the Roorkee College, accompanied with Certificates of their proficiency in the above-named subjects, and of character from some one of the Officers noted in the margin. The Principal having satisfied himself of their proficiency, in such manner as he may think best, will submit his recommendation to the Secretary to Government, North-Western Provinces.

Department of European Non-Commissioned Officers and Privates. They will be required, previous to their admission, to prove by examination, conducted in such manner as the Principal may think best, their proficiency in Reading, Writing, Arithmetic, Elementary Geometry, and Simple Plan Drawing. A certificate of character will also be required from the Commanding Officer of the Regiment, Troop or Company, to which they belong. The instruction in the College will be regulated according to the employment of the Officers in the Department of Public Works, to which they will, when qualified, be transferred for Service.

Travelling charges to Roorkee will be paid. They will be on probation for six months, during which time they will receive, besides free quarters and Regimental Pay, the same advantages as in their Corps, or an equivalent in money. If approved at the end of the period, they will receive the pay of an Overlooker, and will be instructed in the College, to which they will be attached for Public Works, as may be deemed advisable. During

the time they remain at Roorkhee, they will be under the management of the post of Principal of the College.

* Their number is not at present to exceed ten.

Department.*—Native youths desirous of Surveying, Levelling, and Drawing. A fair acquaintance with Arithmetic, good penmanship, and an ability to read and write Urdu in Persian Character will be the qualifications required for admission to this Department.

The number of Secondary Students in this Department will be sixteen, who will receive a monthly allowance of 5 Rupees for maintenance, and board and quarters.

Properly qualified Candidates who are willing to come to Roorkhee and support themselves at their own cost, may be admitted to all the Departments in which as means may be available for their instruction. Should the number of such applicants be numerous, entrance fees will hereafter be demanded for admission to the benefits of the Institution. Instruction will at the present be gratuitous, and no payments will be required without previous notice of one year.

Students who have attached themselves to the Institution of the Principal, will, on leaving the College, be furnished with a certificate of their character and qualifications.

17th. Annual examinations will be held, when the students to the College will be admitted according to their proficiency. Books, Manuscripts, Instruments, &c, will be given to the most deserving students.

By Order of the Honble the Lieutenant-Governor, *Wm. J. Thornton*.

(Signed) J. THORNTON,
Secy. to the Govt., N.-W. P.

No. 11 A.

Camp Roorkhee, 10th April, 1854.

In compliance with instructions received from the Honble the Governor-General in Council, the Honourable the Lieutenant-Governor is pleased to publish for general information and guidance the following despatch from the Honble the Board of Directors, approving the recommendation of his Lordship in Council for the foundation of

* Lower Secondary Class.

a Scholarship at Roorkee College in memory of the late Governor, commencing their command that the College be designated "Thomason College of Civil Engineering Roorkee."

No. 6.

OUR GOVERNOR-GENERAL OF INDIA IN COUNCIL—
PUBLIC DEPARTMENT

London, 14 February, 1854.

1. I entirely concur in the opinion you express, that the Government of India

Letter, dated 11 November, 1853, 20 of 1853. Submitting for Court's Sanction, a proposal to institute an enduring the foundation of a Scholarship or the Thomason College, in memory of the late Mr. Thomason, memorial of the eminent merits and Mr.

Thomason, and we think that the object cannot be accomplished in a more appropriate manner than by connecting it with the College of Civil Engineering at Roorkee.

2. I approve the proposal you have submitted to us, and authorize you to carry it out in such a way as may seem to you suitable. At the same time we are of opinion that the opportunity should be taken of marking the sense of Mr. Thomason's public services, by connecting his memory with the College in a still more emphatic manner; it appears to us very fitting that the institution of such peculiar importance to India, and of a character so entirely novel in this country, should be the work of the founder, and it is accordingly our desire that the College be henceforth designated the "Thomason College of Civil Engineering at Roorkee."

I am, Sir, very respectfully,
Your obedient servant,
We are, &c.,

(Signed) RUSSELL ELLIOT,
J. OLIPHANT,
other Directors.

The above papers are interesting as stating the original scheme of the Thomason College, but the rules and provisions therein are no longer in force, having been gradually modified by a series of orders in subsequent years. The rules now in force are detailed in the following pages

J. C.

RULES OF ADMISSION.

ENGINEER AND TELEGRAPH CLASS

ENGLISH AND NATIVE.

1. Candidates for admission to this Class must be Statutory Natives of India,* and must be under 17 or above 21 years of age at the time of entry to College. No Candidate will be examined more than twice, and no one who has studied for more than three months in any College will be eligible for admission as a Candidate for a Government appointment.

2. Candidates who have passed the Entrance Examination may be admitted for education, and may obtain certificates as Assistant Engineers, provided that (a), accommodation is available; (b), they possess the educational qualifications specified in rule 7, can produce the certificates specified in rules 4 and 5, and may satisfy the Principal that their knowledge of English is sufficient to enable them to pass through the College Course, (c), they pay a fee to be fixed by the Committee of Management so as not to exceed Rs. 100 per annum. If, in addition, they conform to the age limits laid down in rule 1, they may compete for the guaranteed appointments. Scholarships will be paid to these Students.

The College Session commences on 1st April, and applications for admission must be made to the Principal, complete in all respects, not later than the 1st November preceding. The examination will be held in the last whole week of November. Each application should be accompanied by a certificate of—

* "Natives of India" means any person born and domiciled within the dominions of Her Majesty in India, or within the territories of Indian Princes tributary to, or in alliance with, Her Majesty, of parents habitually resident in India, and not established there for temporary purposes only.—Civil Service Regulations, Chapter II., para. 45.

_____ of the _____

The school or schools at which he has been educated.

The profession, situation, relationship and residence of his guardian, (by whom ordinarily, and not by the _____ himself, the application for _____ is made)

The name, title, and residence of the _____ under whose supervision the _____ proposes to be examined. The Candidate should arrange for this before applying to the Principal. with whom, however, will rest the approval or otherwise, of the proposal.

_____ selection from Special Subject No 6 the Candidate elects _____

Every Candidate will be required to produce _____ (which _____ be returned) of good moral conduct, under the _____ of the _____ under whom he has been educated, or of _____ other superior under whom he may have been employed or brought up, and these testimonials should have reference especially to his conduct during the two years immediately preceding his application for admission.

A Medical certificate must _____ furnished _____ form printed on page xxxi, _____ other _____ will be accepted

An 'Examination fee' of Rs. 20 must be forwarded with _____ Candidate's application. until this _____ has been received by the Principal, _____ Candidate's application will not be registered.

7. The qualifying _____ for admission to Entrance Examination are _____ First Arts or Intermediate Examination of _____ Indian University, or _____ High Standard Examination under _____ Code of Regulations _____ European Schools _____ Bengal, North-Western Provinces _____ Oudh, Punjab and Central Provinces, and every Candidate _____ an "Entrance Examination," in the subjects below noted, by means of _____ which will be _____ from Roorkee about the _____ November _____ the Officer who is _____ to conduct _____ Examination

_____ Examination is competitive, and those who _____ highest _____ passed Candidates (only to the number _____ available _____ is _____ the present fixed at 20), will be selected for admission

The following _____ list of the _____ subjects for the Roorkee Examination. They _____ both English and _____ Candidates.—

2. ENGLISH (100)

A short Essay on a given subject. The subject will not be one requiring deep knowledge or originality of thought, but it will show whether the Candidate has the power of expressing his ideas in good English.

HINDUSTANI (50).

Translation of extracts, in the Devanagari character, from an easy Hindustani book, and of easy English sentences into colloquial Hindustani and grammatical questions. Full marks will not be given to Candidates unable to write the Persian script, but the Hindustani system of transcription may be adopted.*

3. NATURAL SCIENCES (100).

1. Chemistry, Prof. Bower, No 3, Physics, Prof. Stewart, and Standford's Physical Geography for the use of Indian Schools.

2. HISTORY (50).

England (*Student's Home*), including Anglo-Indian History (*Leitchbridge's*) and the most recent events in history generally.

SUBJECT No 4 MATHEMATICS (80).

ARITHMETIC (50).

The whole, as in *Arithmetic*.

ALGEBRA (50)

Algebra (larger Algebra), Chapters I. to XXXVII.

GEOMETRY (50)

Euclid, Books I, II, III, IV, VI and XI, to Prop III.

TRIGONOMETRY* AND MEASUREMENT (30).

Height and Distance, Solution of Triangles, Properties of Triangles (as in *Toddhunter's 'Plane Trigonometry'*, Chapters I to XIX., inclusive).

MEASUREMENT (30)

The whole, in special text-book.

SUBJECT No 5 DRAWING† (100).

Scales, Simple Geometrical Constructions, Printing, [in the *College Manual*, entitled 'First Principles of Drawing,' which is 100 pages of *Paiford's Manual*.]

SUBJECT No 6

(1). One of the following languages —

Latin, French, German, Sanskrit, Persian, or Arabic, or

(2). A further course of Physics and Chemistry.

No books of any kind allowed in the Examination hall. The questions necessary for the Trigonometry paper will be given in the question paper.

† Particular attention is called to this subject in which many Candidates fail to qualify.

Candidates taking a language will be expected to translate accurately into good English an easy passage from a book in the language selected, and to render an easy English paragraph into that language. Questions will also be set in grammar.

The text-books for Physics and Chemistry are—

Physics,	Gamot.
Inorganic Chemistry,	Frankland and Japp, (omitting sections in small type)

N.B.—Half the full number of marks in each of the subjects are required for passing, and half marks must be obtained in English Essay. Candidates will be expected to write a clear, legible hand. Up to one-tenth of the marks of each subject will be deducted for slovenly work.

10. There are nine scholarships, three of Rs. 50 a month and six of Rs. 25 a month, tenable for three years. Not less than one scholarship of Rs. 50 and two of Rs. 25 a month are awarded annually, and are awarded to those candidates who, being Statutory Residents of India and belonging to the North-Western Provinces or Punjab, have most successfully performed the prescribed Examination.

11. A College fee of Rs. 100 per annum will be paid by each Student entering the College under the conditions specified in para 12.

12. English Student, unless living with his parents in Reokee, will be required to join the Engineer Class. Native Students may make their own arrangements for their education.

All Students eligible for admission will be enrolled in the "Thames Valley Volunteer Company," and all undergo a course of Rifle Drill in the cold weather, arms and ammunition being provided by Government.

13. Each Student on admission is required to make a deposit in the College Treasury of Rs. 50, as an advance towards the purchase of the necessary Class Books for his own use. The books thus purchased by the Student will be his own property. He should on joining the College be either provided with a good set of drawing instruments, or with a box (about Rs. 100) for purchasing these. The College Depot at Reokee Workshops.

14. Quarters are provided for English Students of Rs. 14 in the College bungalows, at a rate of Rs. 7 to Rs. 14 per month. Each Student, each bungalow containing two quarters, and accommodating four Students. Students may be required to live in bungalows which are reserved for them, at a monthly rent of Rs. 5 for each bungalow.

16. Any Student joining the College, must satisfy the Principal that he has sufficient means to defray his expenses during his course. The monthly allowance is Rs. 100 for the ordinary expenses of English Students, and Rs. 50 for Native Students.

Any Student failing to keep up his studies, will be suspended or ultimately removed from the College.

17. The College year commences on the 1st April and closes on the 31st March. Students are admitted from the 15th August to the 15th October. Students admitted to the College on the results of the Entrance Examination held in November, 1896, will join on the 1st April, 1897.

18. To Students joining the College in April, appointments in the Public Works Department and one or two Telegraph appointments will be open under the conditions stated below.

19. The Civil Engineering Course extends over two years. In the second year in March a Final Examination is held, when those who have completed their course of study and have qualified will receive certificates to that effect.

20. To those less than qualified Civil Engineering Students standing highest in the Final Examination list, will be offered, in order of merit, one year's training on works in the Public Works Department as qualified Students of the Thomson College, Roorkee, on the following conditions:—

- (1) The first five Students a stipend of Rs. 100 a month in the case of Europeans and Eurasians, and of Rs. 50 a month in the case of Natives, with travelling allowance as prescribed.
- (2) To the other Students travelling allowance at the prescribed rates, without stipend.

NOTE—Students are prohibited from parting with their certificates before or during their year of training.

21. At the end of the year of training, appointments in the Public Works Department, as 3rd grade, Provincial Engineer, Rs. 250 per month, will be awarded to those qualified who have passed their year's training successfully.

As far as possible Government shall endeavour to provide temporary employment for qualified Students in excess of the number of permanent appointments who are found competent to receive their training.

23. Engineers required shall be appointed down in Public Code, Volume I, Chapter II, paragraphs 12-14, before promotion to 2nd grade Assistant Engineer. If they are recommended within 3 years for promotion to 2nd grade Engineer they are eligible to re-employment from the Department.

The Telegraph Course extends over two years. In March of the second year is a Final Examination, when those who have completed their course of study and have qualified will be appointed to the service.

The Telegraph Students on the Final Examination list will be awarded Telegraph appointments. They will be appointed Apprentices in the Telegraph Department on Rs. 100 a month, and will remain on probation until they have proved their thorough service in the Telegraph Department. They will be promoted Assistant Superintendent, class VI, second grade, Rs. 150 a month. If they are not recommended within three years for promotion to Assistant Superintendent, class VI, second grade, they will be liable to removal from the Department.

The following is a list of the Text-books, &c., in the Engineer College, which are procurable at the College Book Depot. Application should be made to the Curator.

	Rs. A.		Rs. A.
Algebra, -- -- Colson's, --	2 0	Civil Engineering, --	10 0
Geometry, -- -- " " " "	2 0	Hydraulics, -- --	2 0
Plane Trigonometry, Todhunter's, --	2 0	Ironwork, -- --	2 0
Mensuration, -- --	2 0	Mining, -- --	2 0
Philosophical Dynamics, Hich's Elementary, --	2 0	Surveying, -- --	2 0
Hydro-Mechanics, -- --	2 0	Drawing, -- --	2 0
Calculus, -- --	2 0	Estimating, -- --	2 0
Conic Sections, Geometry, -- --	2 0	Mechanics, -- --	2 0
Differential and Integral Calculus, -- --	2 0	Superficial Science, -- --	2 0
Applied Mechanics, -- --	2 0	Inorganic Chemistry, -- --	2 0
		Notes on Chemistry of Building Materials, -- --	2 0
		Analysis of Lime and Cement, -- --	2 0
		Phototype Printing Process, -- --	2 0
		Lithography, with additions, -- --	2 0

† In the Press.

‡ In progress (Nov. VII. in the Press).

N.B.—(The price quoted is the charge for persons not in the College, including packing and postage).

Drawing Instruments, Drawing Boards, T-squares, &c.,
 able College Depot and Bookstore, Workshops.
 provide himself with these at his cost. Surveying
 instruments are supplied free of cost for the use of
 College.

 required to accompany application for admission
 College,

STATEMENT AGE, EDUCATION, &c., OF CANDIDATE.

<u> </u>	<u> </u> Birth	<u> </u> School or Schools at which	<u> </u> Name, profession, residence of Gene- rator showing rela- tionship.	<u> </u> Name, title, and locality of the Officer who is to conduct Exami- nation	<u> </u> Selection from Special Subject List I.	<u> </u> Remarks.
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

(Place and Date).

Signature.

Papers, &c., supplied herewith.

1. Dedication to Statutory Motive.*
2. Exceptional or other certificate of age †
3. Certificate of qualifying test.
4. Testimonials of Character, as required by Rules†
5. Medical Certificate,
6. of consent of Officer to conduct Examination
7. Fee of Rs. 50

MEDICAL CERTIFICATE.

I certify, that I have carefully examined , that
 his eye-sight is normal, that he is fairly robust, and his constitution is sound; and that he
 has no disease, or bodily or mental infirmity, existing now, or likely to unfit him in
 the future, for active out-door service in the Public Department.

OR

I certify, that I have carefully examined , that
 his eye-sight varies from normal sight in the following respects [here enter them], but that
 in my opinion ^{this defect} ^{or} ^{these defects} are not of such a character as to prove a drawback to his em-
 ployment in the Public Works Department, as out door, drawing, or other work, that he is
 fairly robust, and his constitution is sound, and that he has no disease, or bodily or mental
 infirmity, existing now, or likely to unfit him in the future, for active out-door service
 in the Works Department.

N B.—The above certificate must be signed by a Commissioned Medical Officer, or by a Medical
 Officer in charge of a Civil Station. No other certificate will be accepted, nor will applications be
 entertained unless the above rules be strictly complied with.

* Form for 1 and 2 will be supplied by the College on application.

† Copies properly certified by an Executive Engineer, Public Works Department, will be accepted.

UPPER SUBORDINATE CLASS.

FIRST GRADE.

(Extract Army Regulations, India, ■■■ II, Sec IX, Para III)

1280. The following are the ■■■ for the admission ■■ Non-Commissioned Officers ■■ British Corps and Batteries ■■ the second department ■■ Thomson College ■■ Bhojpur —

1. Candidates for admission to this Class must be Non-Commissioned Officers of not less than three years' service in the Army, of thoroughly good character, ■■ over ■■ years of ■■ on date of ■■ (1st April), and ■■ recommended by ■■ Commanding ■■

2. The Candidate's application for admission, when forwarded by ■■ Commanding Officer to the Principal, must be accompanied by ■■ Army Form 466.

3. Should the Candidate's application be accepted, papers of question ■■ the ■■ Examination will ■■ by ■■ Principal, (with directions for conducting the examination,) to the Candidate's Commanding ■■

4. ■■ following is a list of ■■ subjects for the Entrance Examination. —

(1) Reading, Writing ■■ Dictation, (sentences, rapidly and ■■ spelling)

■■ Arithmetic, comprising Vulgar and Decimal Fractions.

■■ Elementary Mensuration, (as ■■ Toddhunter's *Mensuration for Beginners*), or Algebra (to end of Chapter VI, *Colenso's Algebra, Part I*) as an alternative subject.

(4). Geometry to the extent of (1) the first two Chapters of *Cox's Geometry*, or (2) *Euclid, Book I* (alternative papers will be issued)

This rule as to age will not have effect until the 1st April, 1885.

- Translation of extracts, in the Persian character, from an easy Hindustani book, and of easy English sentences into colloquial Hindustani, and geometrical questions. Full marks will not be given to Candidates unable to write the Persian character; but the Hindustani system of transcription may be adopted.

DRAWING*—(Optional Subject).

- Use of Instruments, of Drawing, Printing, Figures, (see the *College Manual*, "*Principles of Geometrical Drawing*")

2. Candidate passed in by the Lower and subject may be omitted.

3. If the Candidate is a really artistic, he may produce a (signed by an Executive Engineer in the service of Government) his practical skill as a Mason, Carpenter, or Smith, his Examination will be confined to subjects (1), (2) and (3) only.

7. The application for admission may be made to the Principal any time in the year previous to the 31st December, which date no applications will be received. Questions for Examination will be sent to the Commanding the Regiment shortly receipt application. who stand highest on the list of passed dates, to the number of vacancies, be selected for admission.

8. For the whole there are 22 vacancies every year. these, 10 are of the 1st grade for Soldiers, 6 are of the 2nd grade for Civilians, and 6 of the 3rd grade for In the event of there being passed candidates in any of the grades, the total (22) will be made up by more admissions in the other grades, so as to ensure competition among the the 15 guaranteed appointments.

9. The names of the will be published in the Orders in March, and the men will join the College on the 1st April following.

10. When joining the College, they will be required to bring with them the following:—

- (1) Last Pay
- (2) The
- (3) The

11. The of the will be considered as doing duty at the

* Candidates may compete without taking up marks will be earned proficiency in that subject.

College, and, being on probation, will remain on the strength of their respective Regiments (without prejudice to their promotion and other advantages) until appointed to the Military Works Department or Public Works Department, but after twelve months' absence from their Corps they will be supernumerary in accordance with the rules contained in Article 1068, Army Regulations, India, Vol. I., Part I.

Commanding Officers are authorized to promote (with the man junior to him on the seniority roll) any Non-Commissioned Officer studying in the College, on the understanding that they have been superseded, if they been promoted with their Corps, the Commanding Officer will be prepared to place them in their seniority in the higher rank if permanently admitted to the Military Works Department or Public Works Department.

Staff Sergeants, however, will not be permitted to study in Boorkee, unless they consent to resign their appointments. Non-Commissioned Officers on the Unattached List will be required to resign their positions on that list, and to take the regimental pay and allowances of the rank which they held previous to their appointment.

12. Whilst in the College, they will wear the undress or fatigue uniform of their Regiment, and will be under the command of the Principal, or, in his absence, of the Senior Officer of the College who may be present.

13. They will receive, whilst at the College, the same pay as with their Regiments, including Good Conduct Pay when entitled to it, together with money, compensation, authorized in lieu of clothing and bedding, which will be supplied during the three years' course. The compensation will be drawn regimentally and remitted in cash to the men, 11 Rupees per mensem College allowance, is intended to cover the cost of Books and Instruments, and other extra expenses.

NOTE.—See also Rules applicable to all three grades of this Class at the end of the volume.

SECOND GRADE.

1. Candidates for admission to this Class must be under 17 years of age and above 22 years of age on the date of entry into the College. No one who has been in any of the three grades in any Class of the College is eligible for admission as a Candidate for a Government appointment.

Applications should reach the Principal, complete in all respects, not later than the 15th December, accompanied by a certificate of—

The name of each of the schools at which he has been educated
The profession, station, relationship and residence of his guardian, when ordinarily, and by the Candidate himself, the application is made).

The name, title, and residence of the person under whose supervision the Candidate proposes to be examined (The Candidate must submit for this before applying to the Principal, with whom, however, no approval, or otherwise, of the proposal)

Every Candidate will be required to produce testimonials (which will be returned) of good moral conduct, from the school or schools at which he has been educated, or of some other superior under whom he may have been employed or brought up, and of testimonials of reference especially to his conduct during the two years immediately preceding his application for admission.

6. A Candidate qualifying for admission to Entrance Examination will be eligible for the Entrance Examination at the University, or the Final Examination in the North-Western Provinces, Oudh, or the Alternative Examination in Punjab, or the School Examination in Bombay, or the Upper Secondary Examination in Madras, or the Final or High Standard Examination under the Code of Regulations for European Schools in Bengal, North-Western Provinces, Oudh, Punjab and the Provinces.

5. A "registration" fee of five (5) Rupees must accompany the Candidate's application for Examination.

6. A Medical certificate must be furnished in the form signed on page xlii; no fee will be accepted.

7. The Entrance Examination will be an "Entrance Examination" commencing about January 7th, on the subjects noted below. Examination papers will be issued at the beginning of January to the Officer elected to conduct the Examination. Intimation of this will be sent at the same time to the Candidate.

Full Marks.

English Writing, Dictation, (grammar, syntax, and correct spelling), 50

Arithmetic, (Colson's), the whole, 75

* Copies properly certified by an Executive Engineer of the Public Works Department will be accepted.

Geometry, to the extent of the First Book of Euclid, with deductions,	50
Elementary Mensuration, (as in <i>Trachtenberg's Mensuration for Beginners</i>), ..	.. .. .
Urdu Translation of extracts, in the Persian character, from an easy Hindustani book, and an easy English text; colloquial Hindustani, and grammatical questions. (Full marks will not be given to Candidates unable to write the Persian character, but the Hunterian system of transliteration may be adopted), ..	.. .. .
Elementary Drawing Printing Scales. Simple Geometrical Figures, (as in the <i>Rockree College Manual</i> or <i>Principles of Geometrical Drawing</i>), ..	.. .. .
	100
Total,	400

Of the above marks in Drawing, the marks in these subjects, one-half the total are required for passing.

Those who stand highest on the list of passed Candidates, to the number of vacancies, will be selected for admission.

Each examination is complete in itself, and no credit for marks gained in any examination is carried on to any future examination. A Candidate who has failed in, or withdrawn from, an examination after his name has been registered, and presents himself for examination on a subsequent occasion must undergo the full examination, and pay a fresh fee.

In the whole there are vacancies every year. Of these, 10 are of the 1st grade for Soldiers, 6 are of the 2nd grade for English Civilians, 6 of the 3rd grade for Natives. In the event of being insufficient passed Candidates in any of the grades, the total (22) will be filled up by admissions in the grades, so as to secure sufficient competition for the J. F. Government's appointments.

In Class twelve Scholarships are provided, six of Rs. 30 and six of Rs. 25 each per month, of these, six, each ten for 2 years, are annually in the hands of the who pass successfully prescribed Examination, and free quarters are provided in College (European Soldiers) for of this Class, this, or the same amount of private means, should for the ordinary expenses of a of this Class.

In to the Students who obtain Scholarships under this rule, a limited number of Candidates who have passed the Entrance Examination under the usual conditions may be admitted for education,

and to obtain certificates as Upper Subordinates, provided that (a), [redacted] available; (b), they pay a fee to be fixed by the Committee of Management so as not to exceed Rs. 50 per annum. These Students will be eligible for guaranteed appointments, and will [redacted] Scholarships.

11. These Students will be at liberty to make their own arrangements for the purchase of [redacted] Books and Instruments, but Parents or Guardians, wishing the same to be provided through the College, may deposit in the College Treasury the sum of Rs. [redacted] of which Rs. [redacted] is deposited on the Student's admission, and Rs. [redacted] at the beginning of the Second Session. [redacted] [redacted] [redacted] [redacted] to the Student are to be his own property, and should [redacted] balance of cash remain on the account of the [redacted] of his leaving the College, [redacted] will be repaid to him.

12. All the [redacted] of this Class are enrolled in the "Thomason College Volunteer Company" and all undergo a course of [redacted] Drill in the cold weather, arms and ammunition being provided by Government.

NOTE.—See also General Rules applicable to all three grades of the Class at page 21.

THIRD GRADE.

1. [redacted] for admission to this Class must not be [redacted] or above [redacted] years of age at date of entry to the College. [redacted] one who has studied [redacted] more than three months in any Class of the College is eligible for admission as a candidate for a Government appointment.

Applications for admission should be made to the Principal, complete in all respects, and [redacted] [redacted] [redacted] December, accompanied by a [redacted] of—

[redacted] date of birth of the Candidate.

The school or schools at which he has been educated.

The profession, vocation, scholarship and resources of his guardian, (by whom, ordinarily, and not by the Candidate himself, the application is made).

The name, title, and residence of the Officer under whose supervision the Candidate proposes to be examined (The Candidate should arrange for this before applying to the Principal, with whom, however, rests the approval, or otherwise, of the proposal).

Every [redacted] will be required to produce [redacted] (which will not be returned) of good moral conduct, [redacted] the hand of the instructor under [redacted] [redacted] has been educated, or of some other superior [redacted] whom [redacted] [redacted] have been employed or brought up; [redacted] these [redacted] should [redacted] especially to his conduct during [redacted] [redacted] immediately preceding [redacted] application [redacted]

4. The qualifying [redacted] [redacted] admission [redacted] Entrance [redacted] will be [redacted] Entrance Examination of an Indian University, or [redacted] [redacted] in North-Western Provinces and Oudh, [redacted] [redacted] Alternative [redacted] trance in [redacted] Punjab, or [redacted] School Final [redacted] Bombay, [redacted] the Upper Secondary Examination [redacted] Madras, or the Final or High [redacted] Examination under the Code of Regulations for European [redacted] in [redacted] [redacted] Bengal, North-Western Provinces and Oudh, Punjab and Central Provinces.

5. In [redacted] of pupils of Government Schools, who have passed [redacted] "Teachers," certificate must be furnished that three years have elapsed since they left the Normal School; [redacted] they must furnish an [redacted] [redacted] the Inspector of [redacted] [redacted] their District authorizing their application [redacted] [redacted] the College.

6. A "registration" [redacted] of eight (8) Rupees [redacted] [redacted] Candidate's application for Examination.

7. A Medical certificate must be furnished [redacted] [redacted] form printed [redacted] [redacted] [redacted] [redacted] no other will [redacted] accepted.

8. [redacted] [redacted] must be acquainted with both [redacted] English Language and the Vernacular of Upper India, and [redacted] to speak, read, and write [redacted] with tolerable [redacted] and accuracy. He [redacted] [redacted] an "Examination," in the following subjects, commencing [redacted] January 7th. [redacted] papers will be sent from [redacted] [redacted] [redacted] [redacted] January [redacted] [redacted] [redacted] [redacted] conduct [redacted] Examination. [redacted] of this will be sent at the same [redacted] to the Candidate.

Full Marks.

English Writing from Dictation, (correctness, rapidity and correct spelling),	.. .. .	80
Arithmetic, (Colenso's), the whole, .. .. .	.. .. .	75
Geometry, to the extent of the First Book of Euclid, with deductions, .. .. .	.. .. .	..
Elementary Mensuration, (as in Toddhunter's Mensuration for Beginners), .. .. .	.. .. .	75

Copies properly certified by an Executive Engineer of the Public Works Department will be accepted.

Order. Translation of extracts, in the Persian character, from an		Part Ninth.
any Hindustani book, and of any English sentences into colloquial Hindustani, and grammatical questions. (Full marks will not be given to Candidates unable to write the Persian character, but the Hindustani system of transliteration may be adopted).		
Elementary Drawing	Tracing	Scenes
Simple Geometrical figures, (as in the Roorkes College Manual "First Principles of Geometrical Drawing"),		
		60
		100

Total, = 600

NOTE—One-half marks in Drawing, one-third the marks in other subjects, and the marks are required.

Those who obtain highest on the list of passed Candidates, to the number of vacancies, will be selected for admission.

No degree, certificate, &c., obtained by him at any Institution will entitle a Candidate to enter this College, nor will it exempt him, in whole, or part, from the Entrance Examination above detailed.

10. Each examination is complete in itself, and marks gained in an examination are carried on to the next. A candidate who failed in, or withdrew from, an examination, his name has been registered, and presents himself for a subsequent occasion, must undergo full examination, and furnish a fresh fee and certificate.

11. For the whole Class there are 15 vacancies every year. Of these, 10 are of the 1st grade for Soldiers, 5 are of the 2nd grade for English Civilians, 5 of the 3rd grade for Natives. In the event of there being insufficient passed Candidates in any of the grades, the number (22) will be made up by admissions in the other grades, so as to ensure sufficient competition among the 15 guaranteed appointments.

12. In this Class there are 15 Scholarships (each Rs. 100 mensem). Of these, three Scholarships each tenable for 2 years, are annually awarded to Candidates who successfully pass the prescribed Examination, preference being given to natives of the N.-W. Provinces and the Punjab. No promise of a Scholarship can be given to any Candidate till all have been examined.

In the case of Students who obtain Scholarships under this rule, a number of Candidates have passed the Examination under the same rule for education,

to the Upper Subordinate, provided that (a), if available; (b), they pay a fee to be fixed by the Committee of Management so as not to exceed Rs. 50 per mensem. These Students will be eligible for the guaranteed appointments, but not for Scholarships.

13. Quarters are provided for the Students in the College (Natives' Barracks) at a monthly rent of 1 Rupee each, and Students who are holders of Bursarships will be required to pay a monthly sum of Rs. 1 each.

Each Student will be at liberty to make his own arrangements for the purchase of the necessary Class Books and Instruments, but Parents or Guardians wishing the same to be provided through the College, may deposit in the College Treasury a sum of Rs. 50 or more at the time of admission, and Rs. 20 at the beginning of the Second Session. The books and instruments thus purchased are to be his own property, and should any balance of cash remain on this account at the time of his leaving the College, it will be repaid to him.

(General Rules applicable to all three grades of the Class).

1. The Students of these Classes (European and Native) are intended for the Upper Subordinate Service of the Public Works Department.

The complete course of each Student will extend (nearly) 3 years, the first two years in the College devoted to theoretical teaching, and the third year in the 'Works,' to practical training as an Apprentice. If at any period of the Course their progress is unsatisfactory, or if they are not sufficient progress in their studies, they may be suspended or removed from the College, and in the case of Military Students, be remanded to their Regiments.

The First Session, commencing on the 1st April, ends on the 31st March following. At the end of the Session a long and searching examination will be held: and no Student who is not in the standard prescribed for the First Year Course, will be allowed to stay in the College.

The vacation will be from the 15th August to the 1st April. Many Military Students as can be accommodated at the Landour Depot will be sent there for the benefit of their health; the remainder will be sent to the Regiment stationed at Roorkhee, or remain at the Col-

lege: they will continue to be in the College. Students may stay in the College Barracks or go home to their friends, as they prefer.

The despatch of Military Students from Thomason College to Landour Depot is to be restricted by medical authority to transfer to hillia, and to be arranged in the ordinary way, anything special sending to the Depot being avoided. The conveyance of the men is Military charge.

5. The Session will commence on the 1st April, and the following. At the close of this Session the Final (College) Examination will be held. None who fail in the prescribed (as laid down in the "Scheme of Study"), will be allowed to continue under instruction.

6. Those who by the "Higher" or "College" Standard, will receive Special Certificates, exempting them from all further theoretical Examination for promotion to Sub-Engineer. Of those who pass successfully, 15 will be appointed as "Overseer Apprentices." Preference will be given to 5th Military of the 1st Year the list, then to Second Year men, Military and Civil, in order of standing. The Apprentices will spend the third year of their training acquiring the practical part of their education. Overseer Apprentices will be sent out to large and important works, and placed, either singly or in parties, under the charge of experienced Upper for instruction.

7. During the 'Apprentice' year, they will continue their position of 'Students,' and will continue to be borne on the College Lists,—in the money of Soldiers, in their Regimental Military pay the money of Soldiers will be drawn from the Military Department, (as during their College course,) by the Principal, Thomason College. They will in addition be provided with quarters, and a "Staff" allowance sufficient to bring their total consolidated pay per annum—unmarried above consolidated pay, usual Regimental wife and children. Second Grade Apprentices will Rs. 60

* The five appointments guaranteed to Soldiers should be provided by the Military Works Department.

In addition to above the Railway Branch is proposed to employ men annually, vide Government of India, Public Works Department, letter No. 1000 G, dated 1st October, 1904.

as salary with quarters. Third Apprentices will receive Rs. 10 per mensem.

8. Apprentices will keep a diary of the Works they are instructed in which they will submit monthly, to the Instructor and Executive Engineer to the Principal. These officers will examine the diary and give opinions regarding the Apprentice's application to work and conduct, and the appointment of Apprentices to the Military Works Department, or Public Works Department, will depend on his steadiness, temper, intelligence, industry, and practical knowledge of the descriptions of work in which he has been instructed. The Principal will finally decide which Apprentices are fit for permanent appointment to the Public Works Department.

N.B.—Students are prohibited from parting with their Books or Drawing Instruments either before or during their Apprenticeship year.

9. On the conclusion of the practical year's training on Works, the passed Apprentices will be permanently appointed to the Military Works Department or Public Works Department as Overseers of the grades to which they respectively belong, Military being transferred to the Unattached List, and those who are under the rank of Sergeant, will be recommended for promotion to the rank of Sergeant from the date of their transfer to the Unattached List.

10. An Outfit allowance of Rs. 100 will be granted to the passed Apprentices on his appointment to the Department.

11. Travelling allowance at the sanctioned rates, will be paid to passed Students, for the distance from Roorkee to the place of the work on which they are to commence their Apprenticeship, and again from the place to the Stations where they are to be employed as Overseers.

The following is a list of the Text-books, used in the Upper Subordinate of the College, and procurable at the College Depot. Application should be made to Curator.

Roorkee Technical Section		Rs. A.	Rs. A.
I Building Materials,	1 1/2	Coleman's Algebra, ..	2 10
II Masonry, ..	1 1/2	" Arithmetic, ..	2 0
III Carpentry, ..	1 4	Cope's Geometry, ..	1 6
IV Earthwork, ..	1 4	Toulmin's Trigonometry, ..	1 10
VI Buildings, ..	1 4	" Mensuration, ..	2 0
VII Bridges, ..	2 0	Lowe's Hydraulics, ..	2 0
VIII Roads, ..	2 0	Jennison's Mechanics, ..	2 10
X Railways, ..	2 0	Chambers's Logarithms, ..	2 2
College Manuals		Partridge's Printing Presses, ..	2 6
VII Surveying, ..	2 0	Library Catalogue, with Addendum, ..	2 6
XIII Drawing (Folger's), ..	2 0		
XIII. First Principles of Geometrical Drawing, ..	1 4		
XV Key's Examples of Estimating, ..	2 12		

* In the Press.

N.B.—(The price quoted = charge for persons not in College, including packing and postage)

Drawing Instruments, Drawing Boards, T-Squares, &c., procurable at College Dépôt or Roquette Workshops every Student provide himself with these at his own cost. Surveying Instruments supplied of cost for the use of while in College.

Forms required to accompany a Candidate's application for admission to Thomson College, Roquette

FORM NO. 1. SHOWING AGE, EDUCATION, &c., OF CANDIDATE.

1.	Name and Birth	School or Schools at which educated	Name, profession, residence of Guardian showing relationship	Name, rank, locality of the Officer who is to conduct Examination	Signature
2.					

(Place and Date)

Signature

Papers, &c., supplied herewith

1. Testimonials of Conduct, as required by Rules.*
2. Baptismal or other certificate of age†
3. Certificate of qualifying test.
4. Medical Certificate, as required by Rules.
5. Memo. of consent of Officer to conduct Examination
6. Fee

MEDICAL CERTIFICATE (MILITARY AND CIVIL CANDIDATES).

I certify, that I have carefully examined _____, that his eye-sight is normal, that he is fairly robust, and his constitution is sound, and that he has no disease, or bodily or mental infirmity, unfitting him now, or likely to unfit him in the future, for active out-door service in the Public Works Department.

I certify, that I _____ carefully examined _____, that his eye-sight varies from normal sight in the following respects (here state them), _____, in my opinion [the defect or these defects] are not of such a character as to prove a drawback to his employment in the Public Works Department, on out-door, drawing, or other work, that he is fairly robust, and his constitution is sound, and that he has no disease, or bodily or mental infirmity, unfitting him now, or likely to unfit him in the future, for active out-door service in the Public Works Department.

N.B.—The above certificate must be signed by a Commissioned Medical Officer or by a Medical Officer in charge of a Civil Station. No other certificate will be accepted, nor will applications be entertained unless the above rules be strictly complied with.

* Copies properly certified by an Executive Engineer of the Public Works Department will be accepted.

† Form No. 2 will be supplied by the College on application.

UPPER SUBORDINATE CLASSES.

1. The admissions to these Classes shall be limited by the apparent number of Sub-Overseers, there usually being about _____ yearly. _____ of the _____ for more than three months in _____ of _____ College is eligible for admission.

2. For admission, Candidates must be well recommended as Students of good character by the _____ of the School in which they have been instructed, or by the Deputy Inspector of the Educational district in which they belong. In the case of passed "Teachers," certificates _____ be furnished that three years have elapsed since they left _____ School, or that they have the permission of the Inspector of _____ of _____ district to apply for admission to this College.

All Candidates must be between 17 and 21 years of age at date of admission to the College, and must furnish a certificate of sound _____ and physical fitness for the duties of Sub-Overseer (vide Form below), _____ form will be accepted. A registration _____ of three _____ _____ accompany the Candidate's application for examination.

MEDICAL CERTIFICATE.

I _____, who have carefully examined _____, that his _____ is normal, that he is fairly robust, and his constitution is sound, and that he has no disease, or bodily or mental infirmity, unfitting him now, or likely to unfit him in the future, for active out-door service in the Public Works Department. His age by appearance is about _____ years.

OR

I certify, that I have carefully examined _____, that his eyesight varies from normal sight in the following respects [here enter them], but that on my opinion [the defect or these defects] are not of such a character as to prove a drawback to his employment in the Public Works Department, on out-door, drawing, or other work, that he is fairly robust, and his constitution is sound, and that he has no disease, or bodily or mental infirmity, unfitting him now, or likely to unfit him in the future, for active out-door service in the Public Works Department. His age by appearance is about _____ years.

If a.—The above certificate must be signed, within a month before date of admission, by a Commissioned Medical Officer, or by a Medical Officer in charge of a Civil Station. No other _____ will be _____.

SUBORDINATE

All Candidates must have a fair knowledge of the Urdu language, and must be able to read and write it in the Persian character with ease and accuracy. They must also have a fair elementary knowledge of English, in which language the examination will be conducted.

Applications from Candidates for entrance must be submitted during the month of May. They will be entertained during the month, nor will they receive attention, unless accompanied by the prescribed forms and certificates detailed in paras. 2 and 3, Form below.—

Form required to accompany application for admission.

STATEMENT OF AGE, EDUCATION, &c., OF CANDIDATE.

No.	Name of Candidate	School or College at which educated	Name, rank, position, and residence of Father	Name, title, and position of the Officer who is to conduct examination	Character by School Master or other officer
1	2	3	4	5	6

(Place and Date)

Signature of School Master or forwarding officer.

Papers, &c., supplied herewith

1. Testimonials of Conduct, as required by Rules
2. Diplomas or other certificates of age.
3. Maternal Certificates, as required by Rules.
4. Memo. of consent of Officer to conduct Examination
5. Fee

6. The subjects for Entrance Examinations are as below:—

	Marks assigned
Arithmetic (Colebrook's), the whole.	100
Printing in Persian.	50
Elementary Geometry (1st and 2nd Books of Euclid).	50
Measurement of Figures (Talmage's).	50
History of India (Hume's).	50
Elementary Geography (S. A. Hall, 1st and 2nd Books).	50
English Dictation.	50
Urdu Colloquial.	50
Total,	450

The examination will be conducted in English and Urdu, and will be given in hand-writing in Persian papers, preference will be given to those answering in English. Qualifying for admission to the Examination is required.

* Form No. 2 will be supplied by the College on application.

One-third the full marks in each subject and one-half of the marks required for admission; but the fact of passing the examination will entitle a Candidate for admission, unless the marks are high enough to be included in the list of passed Candidates to be included in the number of whom vacancies exist at the College.

7. In order that the College may be enabled to appoint in all parts of India supplied by the College, the vacancies will be allotted as follows—*N.W. Provinces and Oudh and Panjab* 30, *Administrations* 10. Should there be an insufficient number of successful Candidates from the Local Administrations, the full number will be made up from the general list in the order of standing in the examination results.

In addition to the marks obtained under rule 7, a limited number of Candidates who have passed the Entrance Examination under the usual conditions may be admitted for education, and to obtain certificates as Lower Subordinates, provided that (a), accommodation is available; (b), they are recommended to be admitted by the Committee of Management not to exceed the number per annum. These Students will draw stipends under rule 11.

8. The examination will commence on Monday of July. As many Candidates as live within reasonable distance of Koorkee will be directed to attend at the College for examination. For those at a distance papers will be sent to other centres, usually the Head Master of the District School of selected central districts, or to some suitable person as arranged by the Principal. These officers will arrange to conduct the examinations, and forward the Candidate's answers to the College. Information of the results will be sent in each case to the officer conducting the Examination for communications to the Candidate, with an order for admission for the accepted Candidates.

9. The College will be opened on 1st April. Admitted Candidates should present themselves, with their orders, at Koorkee on that date, or a day or two before. All are required to be present on 1st April, on penalty of forfeiture of right of admission.

Draftsman and Computer's Class.—Six Candidates will be admitted promising in Drawing to be included in the 1st Year's Course, Lower Subordinate Class. During the second year they will be kept in Drawing, Estimating and Surveying only, they will be kept

LOWER SUBORDINATE CLASSES.

another months Drawing Estimating only in all branches usually required for the Public Works Department, including preparation of finished plans no appointments open end of first six months, they kept at College until appointments are found, not longer than six months, so that whole Course will not 8 years, including vacations. Qualified Draftsmen Computers will be granted special certificates before leaving College.

11. provision of Rs 4,200 a year P. W. Department, and Rs. a year in the Educational Department Budgets Stipends Students of these Classes. These are monthly on the standing of the Students, in Examination. man will a stipend who gained qualifying marks in subjects for the month in which stipend is payable In the Sub-Overseer Classes the stipends are—the first two at Rs. 10, second two at Rs. 8, third two Rs. 6, and on to Rs. 5, below who qualify will Rs 4 monthly In the Draftsman Computer's Class the stipends are—2nd year exceeding 12 each; 3rd year not exceeding Rs. 15 each, but the to depend on progress made.

12. Students whose conduct, or progress in study is unsatisfactory are liable at any time to be deprived of their stipends whole or in part, to be dismissed from College at the discretion of the Principal.

Free quarters are provided, but no member of a Student's family is allowed reside with him

14 pay fees, but must provide themselves with books and stationery, and other necessaries, the Principal. The probable expense of these may amount about Rs. during their of study, and no present himself for admission who is prepared meet the above charges, well as of feeding himself and dressing decent clean apparel.

15 Students of these Classes are intended for Lower Subordinate Grades of Public Works Department, appointment is guaranteed. of several Grades as below, consolidated, travelling.

Sub-Overseer, 1st Grade, " 2nd " " 3rd " " 4th " " 5th " " 6th " " 7th " " 8th " " 9th " " 10th " " 11th " " 12th " " 13th " " 14th " " 15th " " 16th " " 17th " " 18th " " 19th " " 20th " " 21st " " 22nd " " 23rd " " 24th " " 25th " " 26th " " 27th " " 28th " " 29th " " 30th " " 31st " " 32nd " " 33rd " " 34th " " 35th " " 36th " " 37th " " 38th " " 39th " " 40th " " 41st " " 42nd " " 43rd " " 44th " " 45th " " 46th " " 47th " " 48th " " 49th " " 50th "	Qualification Increase.	Various.
50	10	
55	5	
	5	
	5	

16. College Course for Sub-Overseers. A year, Final Examination, which Certificates will be granted, will be held in. All who qualify will be granted Probationary Grade Sub-Overseers, and be recommended for appointment in the Public Works Department as may be available from time to time. If all are not absorbed before the succeeding batch is passed, such will be graded by their merits with the certificates and treated with them. The Principal pay, however, grant a Student after a full year's satisfactory study, as demands for Sub-Overseers are received. To qualify for this indulgence, a must have completed his full Drawing and Surveying Course as laid down for first year, and must have obtained half marks in subject and two-thirds of the total of the Examinations up to date.

17. All men of these Classes who obtain appointments will be on probation for a year on the works, and their certificates will be completed by the Executive Engineer under whom they are working. If the of it, should be satisfied with their conduct. It will be to to require a further period of probation, or refuse to complete certificate in case of unsatisfactory work. After a year all Rookie Sub-Overseer's Certificates will be of value and be countersigned, in place prepared for it, by an Executive En-

18. Travelling allowance at the rate of two annas per mile by double by rail, for the distance from their respective destinations, will be advanced by the Principal of College passed Students on their first appointment to the P. W. Department, be refunded by the Executive Engineers under they are appointed.

COURSE OF STUDY

ENGINEER CLASS.

The Course of Study extends over two years, and comprises ten separate subjects, to which the following numerical values are given:—

Subjects	VALUES.	
	First year	Second
1. Elementary Pure Mathematics, ...	400	400
2. Mechanics and Conic Sections, ..	280	400
3. Higher Pure Mathematics, ...	...	150*
4. Applied Mechanics, ...	100	280
5. Civil Engineering, ..	400	850
6. Drawing, ...	140	400
7. Surveying, ...	160	400
8. Experimental Science, ...	140	800
9. Accounts, ...	100	100
10. Physical and Sports, ...	...	250
Total, ..	1780	...

One-third marks in each subject are one-half in the first year, as "required" passing" of the first year. As the rule, Students failing to obtain the standard will not be allowed to enter the College for their second year, but the Principal may permit promising students, reporting the case for the Governor, North-West Provinces. If his return is sanctioned, they will be fully eligible to compete for one of the guaranteed appointments in his second year.

Obligatory for Higher Standard only.

COURSE OF STUDY.

The marks required at the end of second year for the various certificates are as below. Subject **English** included in **all** conditions **for** **all** Higher Certificate only.

- i. To pass for a Certificate of any sort **one-third** marks must be obtained in each subject.
- ii. In addition to this, to **pass** merely **for** an ordinary Certificate qualifying as Assistant Engineer, **one-half** marks must be gained in the total.
- iii. **For** **the** **University** **obligatory** on all **persons** guaranteed Government appointments, **one-third** marks in each subject and **60** **marks** in total is necessary.
- iv. For **the** Higher Certificate **one-half** marks must be gained in each subject and **two-thirds** in total.

The Final Examination is held in March in each year, and periodical examinations are held during the year as below.

System of Marking.

The **marks** points **are** at are, first, to keep the Students up to the mark in the **first** year, and second, **to** the proportion of **marks** **awarded** to each subject shall be, as far as possible, the same in **both** years, so that **the** first year's results may give the men a fairly reliable **idea** of their position in the list.

Subjects completed in complete in **the** as they go, i.e., in which there is no repetition in **the** second year, carry their full first year **marks** on to the final second year total. These are Nos. 1, 6, 7 and 8.

In **the** other subjects there is repetition, as, **for** **example**, examination in **the** same work in **the** second year. In **these** **cases** **the** **marks** **are** **given** as nearly as possible about one-third or one-fourth of **the** **full** value in the **second** year in **the** **first** year work, as an **incentive** to work thoroughly in **the** **second** year, but in the first year, in order to bring **the** subjects up to their relative value in comparison with **the** others in **the** results, **the** **marks** are counted double value. **For** **the** **first** year the **marks** for **the** subject are rather over half the Final full **marks**. In **the** **second** year could **be** quite be arranged, but all subjects **are** together **the** **marks** **are** **great**.

The **marks** of **the** **subjects** **studied** and **the** **marks** in **the** are **as** in following Tables—

ELEMENTARY MATHEMATICS (400)

Sub-division	Text-books and particulars	FIRST YEAR				SECOND YEAR			
		During year		Total	Final year marks	During year		Final year marks	Grand Total
		Date	Marks			Date	Marks		
Arithmetic, ..	Coleman's, ..			40					
Algebra, ..	Toddman's, ..			60					
Geometry, ..	Euclid, ..			30					
Trigonometry, ..	Toddman's, ..			30					
Mensuration, ..	Toddman's, ..			40					
Total first Year's Marks—(160 required for passing),		..	..	400	400				400

MECHANICS AND CONIC SECTIONS (400)

Sub-division	Text-books and particulars (for books entered selections only are made)	FIRST YEAR				SECOND YEAR			
		During year		Total	Final year marks	During year		Final year marks	Grand Total
		Date	Marks			Date	Marks		
Mathematics, Part I, ..	Euler's Elementary Dynamics, ..	June	40	70				100	
Mathematics, Part II, ..	Drew's Conic Sections, ..	August	25	25				70	
Conic Sections, ..	Brewer's Conic Sections, ..	November	10	10				30	
(Geometrical), ..	Brewer's Elementary Hydrostatics, ..	January	30	30				70	
Hydro-Mechanics, ..	Love's Hydrostatics, ..								
Total first Year's Marks—(85 required for passing),		..	..	100	100			140	
Total second Year's marks—(160 required for passing),		..	..	..	..			140	400

ENGINEERING MATHEMATICS

(Satisfactory for Higher Standards only)
 No student is allowed to take up this subject who has not in his first year obtained at least half credits in each of the subjects of Elementary Years Mathematics
 and Mechanics and Credits equivalent.

Sub-divisions	Text-books and particulars (Of books entered otherwise only are read)	FIRST YEAR					SECOND YEAR				
		During year		Marks	Total	First year marks out of 100	During year		Marks	Total	Second year marks out of 100
		Date	Books				Date	Books			
Coordinate Geometry	Textbook's	..	..	..	..	..	May	..	..	..	..
Differential Calculus	Textbook's	..	..	..	..	..	July	..	..	..	..
Integral Calculus	Textbook's	..	..	..	..	..	August	..	..	..	..
Total Second Year's Marks—(75 required for passing)		..	..	..	..	..	..	..	..	..	150

APPLIED MECHANICS (250)

Sub-divisions	Text-books and particulars	FIRST YEAR					SECOND YEAR				
		During year		Marks	Total	First year marks out of 100	During year		Marks	Total	Second year marks out of 100
		Date	Books				Date	Books			
Strain, Stress, and Oscillations	Roche's Manual, Vol. I, Part I, .. " " " " Vol. II, .. Calculations of ..	February	20	..	20	..	May	..	..	..	..
First Year's Marks—(83 required for passing)	..	..	..	..	..	..	July	..	..	..	..
Total Second Year's Marks—(83 required for passing)	..	..	..	..	..	..	February	..	..	..	150

* B — The Thurston Galt Model is awarded for excellence in this subject, upon a total of 475 marks † 25 credits of a degree, Design, Plans, and Mathematics
 for each work—total (475) marks, 100 for each year

† Applied Mechanics, .. 100
 Design, .. 100
 Plans, .. 100
 Total, .. 300

	Text book used	First Year				Second Year			
		During year		Total	Value in subscription	During year		Total	Value in subscription
		Date	Months			Date	Months		
Building Materials and Kitchen etc.	" "	May	49						
Carpentry, "	" "	May	30						
Masonry, "	" "	June	30						
Ironwork, "	" "	July	30						
Materials of General Construction, "	" "				100				80
Buildings and Bridges, "	" "								
Roads and Highways, "	" "								
Hydraulic Works, "	" "								
Special Construction, "	" "								
Estimating, "	" "								
Mechanism, "	" "								
Ground Training, "	" "								
Work on Works, "	" "								
Projects, "	" "								
Total First Year's Marks—(125 required for passing),		..	..	800	160	440	200	260	850
Total Second Year's Marks—(255 required for passing),		200	260	850

DRAWING (400).

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COURSE OF STUDY,

Sub-divisions		First Year				Second Year			
		During year		Practical examination	Year	During year		Practical examination	Second Year
		Term	Marks			Term	Marks		
General Engineering Drawing.	Notes Manual of Drawing.		40				90		
	Students are expected to complete the regular detailed course, working in the College, by end of August in second year. Any Drawings remaining after this will be finished in College, but will only receive one-third value. The whole course is valued at 100 marks.		20			May	20		
Examinations.	There will also be periodical examinations of hand drawn.	June	20			June	20		
	All Drawings sub.	July	20			August	20		30
Project.		August	20	30		February	100		
			110	80	140				
First Year Marks—(46 required for passing).		..	..	..	..
Total Second Year's Marks—(128 required for passing).		..	..	..	..		230	30	400

• SUPPLEMENTAL

[illegible]

COURSE OF STUDY.

Sub-divisions	Yearly and periodic	First Year			Second Year			Total	Total
		During year		At present time	During year		At present time		
		Date	Marks		Date	Marks			
Chemistry and Physics are included in all-early years,	Gannet's Physics by Address. Inorganic Chemistry, Wilson's. A course of lectures on Chemistry. Heat, Electricity, &c., and also In- vention on Building Materials and Analysis. Notes on Chemistry of Building Materials, Chatham Mineral, and Analysis of Lime and Cement Stones, Thompson's. .. A Course of Lecturing Conducted by Tessing. Lectures said practical instruction in the Parrottypé process of copying plans. ..	May	34	40	May	20	40	140	
		July	35		July	30			
		August	35		August	25			
		October	35		October	25			
					July	10			Current year's work, Part 2 "
Total First Year's Marks—(40 required for passing),			100						
Total Second-Year's Marks—(100 required for passing),			..						

The Science series comprises the two subjects, *Handwriting and Mental Philosophy*. These are taught in alternate years to all the students of both years of the same time. In *Handwriting* and *Mental Philosophy*, July to August, is occupied with *Practical Anatomy*, and the October examinations in mainly in this branch of the subject. The *Final Examination* for the students of the United Year are conducted in the subject in the first Year, in which making 50 marks are awarded.

WOOD BARNBROOK

Sub-divisions	Year-books and publications	First Year				Second Year			
		During year		Total	No. of copies of books	During year		Total	No. of copies of books
		Date	Month			Date	Month		
				50	50				50
Total First Year's Marks—(50 required for passing)				50	50	100		50	
Total Second Year's Marks—(50 required for passing)				50	50			50	100

—The [redacted] has not yet been laid down.

PEYNIQUE AND REPORTS (200).

Sub-divisions	Detail		Second Year Marks
Health,	..	Marks awarded by Medical Officer or Civil Surgeon in charge of Out-patients,	..
General,	..	Probable fitness for Department,	..
Athletic Sports,	..	Proficiency in Games, etc.,	..
		Total,	250

Distribution of Studies, Engineer Class.

Subjects		APRIL TO AUGUST 1914.			OCTOBER 1914 TO MARCH.		
		30 to 13	13 to 1.	1-30 to 4	1	13 to 1	1-30 to 4.
First Year							
Monday,	"	Mechanics.	Science of Civil Engineering	Drawing.	Surveying	Mathematics	Civil Engineering
Tuesday,	"	Mechanics.	Science	Civil Engineering	Surveying	Science.	Appl. Mechanics.
Wednesday,	"	Mechanics.	Mechanics.	Drawing	Surveying	Surveying	Surveying.
Thursday,	"	Mechanics.	Science of Civil Engineering	Civil Engineering	Surveying	Science.	Civil Engineering
Friday,	"	Mechanics.	Science	Drawing	Surveying	Science.	Appl. Mechanics.
Saturday,	"	Drawing.	Drawing		Drawing	Drawing	
Second Year							
		APRIL TO AUGUST			OCTOBER TO MARCH.		
Monday,	"	Applied Mechanics	Science of Civil Engineering	Drawing.	October	Surveying, Ground Training and Analysis.	
Tuesday,	"	Mechanics.	Science	Drawing	November		
Wednesday,	"	Mathematics.	Mathematics	Civil Engineering	December.	Project Survey and preparation complete by February.	
Thursday,	"	Applied Mechanics.	Science of Civil Engineering	Drawing	January.		
Friday,	"	Mathematics.	Science.	Civil Engineering	Feb to March	Revision.	
Saturday,	"	Drawing	Drawing				

COURSE OF STUDY.

UPPER SUBORDINATE CLASS.

Study ■■■ College, extending ■■■ two ■■■■ Sem-
 ■■■ subjects undermentioned, ■■■ which are attached
 numerical values here set down.

Subjects.				VALUABLE.	
				1st year	2nd year.
1. Mathematics,	..	..	..	220	■
2. Civil Engineering,	{	■ L,	...	120	■
		■ Part II,	...	■	■
3. Drawing,	...	...	...	120	■
4. Surveying, ...	...	..	...	120	■
5. Accounts, ...	...	..	..	100	100
6. English, ...	...	...	..	■	■
7. Physique and Sports,	..	...	...	...	■
Total,				780	1880

One-third marks ■■ each subject ■■ one-half in the total are entered as "required for passing" at ■■ end of the first year. As a rule, Students failing ■■ obtain this standard will ■■ be allowed to ■■■ to College for their second year, but the Principal may permit any promising ■■■■ do ■■ reporting the case for sanction to ■■ Government North-West Provinces. If his return is sanctioned, ■■■ ■■■ will be fully eligible ■■ compete for ■■ of the guaranteed appointments in his second year.

■■ qualify ■■ the Ordinary Certificate (required ■■ ■■ Overseers) ■■ Student must, ■■ Final Examination, ■■■ less than one-half (825) the total number ■■ marks, and one-third of the number ■■■■ of ■■ subjects above specified.

For the Higher or College Certificate, it ■■ necessary ■■ gain three-fifths (1110) of the total, ■■ one-half ■■ attached ■■ subject. ■■ ■■■■ exempts ■■ ■■■ from any further ■■■■ Examination for promotion to the rank of Sub-Engineer.

■■ Examination ■■ held in ■■ month ■■ March, ■■ Periodical Examinations are ■■ during the ■■■ as below.

MATHEMATICS (400).

Sub-divisions	Text-books and particulars	FIRST YEAR				SECOND YEAR				Total	Marks required in passing	Total Marks		
		During year		Total	Marks required in passing	During year		Total	Marks required in passing					
		Date	Marks			Date	Marks							
Arithmetic,	Arithmetic (The whole book).	April	30	45	60							60		
Geometry,	Case's Geometry. (Chapters 1, 2, 3 and 6).	May	30	30	50							50		
Algebra,	Colenso's Algebra, Part I, (to the end of Quadratic Equations).	June	30	30	50							50		
Measurement,	Toddhunter's Measurement for Beginners. (The whole book).	July	30	40	60	July	10		10			60		
Trigonometry,	Toddhunter's Trigonometry for Beginners. (First 4 Chapters).					May	10		10			60		
Total First					Marks—(75 required in passing).					230	130			
Total					Year's Marks—(125 required in passing)					..	130	20	270	400

CIVIL ENGINEERING, PART I. 1887.

Sub-division	Text-books and particulars	FIRST YEAR				SECOND YEAR				Grand Total Marks out of 180	Grand Total Marks out of 180
		During year		Final examination	Grand Total	During year		Final examination	Grand Total		
		Date	Marks			Date	Marks				
Building Materials,	Roofs Treatise, Vol. I, Sec. I. Explained by lectures and inspection of specimens in museum, and visits to workshops, kilns, &c., about Roofs, &c. Roofs Treatise, Vol. I, Sec. II, and Vol. II, Sec. VI Explained by lectures, inspection of say work in progress, and practice in bonding walls, flat and relieving arches, with bricks laid dry. Roofs Treatise, Vol. I, Sec. III. Explained by lectures and models, and visits to the workshops. Roofs Treatise, Vol. I, Sec. IV. Roofs Treatise, Vol. II, Sec. VII. Roofs Treatise, Vol. II, Sec. IX. Roofs Treatise, Vol. II, Sec. X. Roofs Treatise, Vol. II, Sec. XI. Jamieson's Elementary Mechanics, ..	June	20	10	30						
		July	20	10	30						
Masonry,	Roofs Treatise, Vol. I, Sec. III. Explained by lectures and models, and visits to the workshops. Roofs Treatise, Vol. I, Sec. IV. Roofs Treatise, Vol. II, Sec. VII. Roofs Treatise, Vol. II, Sec. IX. Roofs Treatise, Vol. II, Sec. X. Roofs Treatise, Vol. II, Sec. XI. Jamieson's Elementary Mechanics, ..	August	20	10	30						
		December	20	10	30						
Carpentry,	Roofs Treatise, Vol. I, Sec. IV. Roofs Treatise, Vol. II, Sec. VII. Roofs Treatise, Vol. II, Sec. IX. Roofs Treatise, Vol. II, Sec. X. Roofs Treatise, Vol. II, Sec. XI. Jamieson's Elementary Mechanics, ..	July	20	10	30						
		August	20	10	30						
Barthwork, Bridges, Railways, Roads,	Roofs Treatise, Vol. I, Sec. IV. Roofs Treatise, Vol. II, Sec. VII. Roofs Treatise, Vol. II, Sec. IX. Roofs Treatise, Vol. II, Sec. X. Roofs Treatise, Vol. II, Sec. XI. Jamieson's Elementary Mechanics, ..	January	20	10	30						
		January	20	10	30						
Total First Year's Marks—(40 required for passing),			..	..	..					130	60
Total Second Year's Marks—(40 required for passing),			..	..	..					..	..

Each Student will keep a Note-book for recording descriptions and sketches of any materials, manufactures or works visited by him. Advantage will be taken of every work of repair or construction, under execution, as at least a sketch, or of suitable examples in the workshops, for careful reproduction, both under instruction of a Master, and independently. Full notes and sketches of these are to be recorded by Students in their Note-books, which are to contain no transcripts from their Text-books. All sketches should be done in pencil, and the date of each visit to a work invariably recorded at the head of the notes adjoining to the same. These Note-books will be inspected once a month, and marks will be awarded at the end of each session.

Project,

Note-Books,

70	70	July	134	260	430
45					
Total First Year's Marks—(28 required for passing), 70 35					
Year's Marks—(145 required for passing), 35					

is expected in his First Session to have learned the rudiments of Civil Engineering theory in regard Building Materials, Earthwork, Carpentry and Masonry to be able with his own hands lay bricks, walls, etc. understand the details of all ordinary joints: to have inspected all Engineering works in progress in the Session, will continue to study the Construction of Buildings, Bridges, etc. to inspect make there will prepare a series of Exercises to lay out ordinary buildings on the ground perfect himself in laying out curves also on the ground will also prepare a sample Project, design, plan estimate for work selected for the year.

1941-1942 (800)

Year-book and particulars	First Year				Second Year			
	During year		Total	Total in library	During year		Total in library	Grand Total
	Date	Months			Date	Months		
<p>Booker Manual of Drawing in the Text-book.</p> <p>Printing, books, construction of arches, and elementary perspective, ..</p> <p>The tuning and shading, examples of coloring, .. from models and copies, and tracings,</p> <p>Bridges .. buildings .. copies with charts of tables and original notices,</p> <p>Projection of shadows of planes, surfaces, ..</p> <p>Trusses, joints, roofing, .. from copies and models, colored, ..</p> <p>Buildings and bridges, from non-increment, rough sketches and specifications, with tracings, ..</p> <p>Large Engineering drawing with details, ..</p> <p>Intersections of planes and solids</p>	April	10			April	19		
	May	10			June	64		
	June				July			
	July				October			
	August				November			
	October				December			
	December	10			January	28		
					February			
					February	18		

MAILED 40 MAR 1942

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Category	Description	Quantity	Unit Price	Total
Manuscript	Letters and practical instructions in the Parotype process for copying plans	10	10	100
Typographical	Survey Signs	10	10	100
	Specimen of a Survey from copy	10	10	100
	Specimen of a Halfway and Head Survey with Longitudinal Section	10	10	100
	Specimen of a Canal Survey with Longitudinal Section	10	10	100
Engraving	Elementary, Buildings from copy, and sketches from models in Museum	10	10	100
	Isometric Perspective	10	10	100
	Graphic plans and models	10	10	100
Printing	Examination	10	10	100
	Total First Year's Works—(10 required for penmanship)	100	10	1000
	Total Second Year's Works—(100 required for penmanship)	100	10	1000

ACCOUNTS (100)

		First Year			Second Year			Grand Total
		During year	Final Ex-amination	Total	During year	Final Ex-amination	Total	
Sub-divisions	Tests-books and portfolios		80	80			80	100
Note.—This Course has not yet been laid down								
First Year's Marks—(80 required for passing)		80						
Total First Year's Marks—(80 required for passing)		80						100

URGENT (EO)

No.-Alphabet	Text-books and partitions	FIRST YEAR				SECOND YEAR			
		During year		Total	During year		Total		
		Date	Marks		Date	Marks			
				20			35		
	Spoken by _____ in Writing from Dickinson, and in Reading, ..								
	Total First Year's Marks—(10 required for passing),	..	..	..	20		
	Total Second Year's Marks—(16 required for passing),	..	..	..	..		50

PHYSIQUE SPORTS

Sub-Divisions	Details	Grand Total Marks
Health, ..	Marks awarded by Medical Officer or Civil Surgeon in charge of College, ..	50
General, ..	Probable fitness for Department, ..	50
Athletic Sports, ..	Proficiency in Games, &c, ..	50
Total, ..		150

LOWER SUBORDINATE CLASS.

The Course of Study comprises the thirteen subjects undermentioned, in which the values given are attached—

Subjects	VALUES.	
	First year	Second year.
1 Elementary Mathematics, ..	80	80
2 Mechanics,	80	80
3 Applied Mechanics,	80	80
4 Natural Science,	80	80
5 Drawing,	220	260
6 Surveying,	260	160
7 Estimating,	100	160
8 Languages,	160	160
9 Materials and Construction, ..	160	160
10 Electrical Engineering, ..	80	80
11 Workshops,	80	80
12 Machine Works,	80	80
13 Physics,	80	80
Total, ..	1070	1070

To qualify for the Ordinary Certificate a 3rd Class Sub-Overseer, must gain at least one-third marks in each subject, and half the marks during the first year.

During the second session the Students will be further instructed in the subjects above noted.

The Course of Study of the several Examinations, assigned to them, is shown in the following Tables.—

LOWER SUBORDINATE CLASS.
ELEMENTARY MATHEMATICS (320).

Sub-divisions	Text-books and syllabuses	FIRST YEAR				SECOND YEAR				Grand Total	
		During year		Final Ex- amination	Total	During year		Final Ex- amination	Total		
		Tests	Exams			Tests	Exams				
Arithmetic,	Colman's Arithmetic, ..	20	20	50	500	July	30	40	70	320	
Algebra,	Robson's Algebra, ..	20	20	40							
Geometry,	Willson's Geom., ..	20	20	40							
Trigonometry,	Techener's Trigonometry for Engi- neers, ..	20	20	40							
Mensuration,	Techener's Mensuration for Engi- neers, ..	20	20	40	500	April	30	40	70	320	
	Review Mathematical Tables.	20	20	40							
Total First Year's Marks—(86 required for passing), ..		..		170	500	..		70	60	320
Total Second Year's Marks—(106 required for passing), ..		..		..	..	..		..	..	..

MECHANICS (50)

Subjects,	No. XIV, Simple Applied Mechanics,	During year		Final Ex- amination	Total	During year		Final Ex- amination	Total	Grand Total
		Tests	Exams			Tests	Exams			
Physics, ..	No. XIV, Simple Applied Mechanics,	20	20	40	500	November	30	40	70	50
		20	20	40						
Total Second Year's Marks—(16 required for passing),

LOWER SUBORDINATE CLASS.

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LOWER SUBORDINATE CLAM.

APPENDIX B CONTINUATION

[illegible]

NATURAL SCIENCE (80)

Physiography, ..	Geologic Physical Geography, ..	February	10	20
Total First Year's Marks—(10 required for passing), ..				
Total Second Year's Marks—(10 required for passing), ..				
30				

• Top Level:

SUBORDINATE

DRAWING (350).

Sub-divisions	Techniques and particulars	FIRST YEAR				SECOND YEAR				Grand Total
		During year		Final Marking	Total	During year		Final Marking	Total	
		Date	Marks			Date	Marks			
Theory of Drawing, Course to be drawn in College	<p>Manual of Drawing, Term Examination,</p> <p>Students are expected to complete the regular detailed course for each year, working in the College, by the end of June. Any drawings remaining after this date may be finished in College during the second year, but will only receive one-half value in marks.</p>		20							
Elementary and General, ..			100				70			
Topographical, ..			20							
Iconological, ..			25							
Model, ..			20							
Designing, ..							20			
Architectural, ..							20			
			11		200					
Total First Year's Marks—(75 required for passing), ..			..		..					350
Total Second Year's Marks—(116 required for passing), ..			..		..					850

LOWER SUBORDINATE CLASS. SURVEYING (360).

Sub-divisions	Text-books and publications	FIRST YEAR				SECOND YEAR			
		During year		Total	In the field	During year		In the field	Total
		Books	Maps			Books	Maps		
Use and Adjustment of Instruments.	Booklet Manual of Surveying.								
Levelling in the Field.	" Text-book on Levelling, ..		90				90		
Ground Tracing.	" " ..	January	25						
Curved and Alignment.	" " ..	March							
Surveying.	" " ..								
Station Survey.	" " ..								
" Levelling.	" " ..								
" Traversing.	" " ..								
Demonstration.	" " ..								
Total First Year's Marks—(90 required for passing).		..	55	305	300	..	..	..	300
Total Second Year's Marks—(116 required for passing).		..	..	..	..	..	..	..	350

* This will include a practical demonstration in the field and should thoroughly test the competence of each student.
† This has been 5 units in 34 days in the city.

ESTIMATING (150).

Specifications, ..	Booklet Manual of Estimating.								
Quantities ..	" " ..								
Estimate ..	" " ..								
Examinations while studying the subject.	" " ..								
Total Second Year's Marks—(90 required for passing).		..	..	..	..	..	..	..	150

Specifications, ..
Quantities ..
Estimate ..
Examinations while studying the subject.

May
Dec.

20
90
100

20
90
100

LANGUAGES (150)

Sub-division	Teacher's and students	FIRST YEAR				SECOND YEAR			
		First year		Total	Total	Second year		Total	Total
		Date	Month			Date	Month		
English,	College Text-books Students will be examined in English dictation, reading and in transla- tion from English into Urdu and from Urdu into English.	December	30	30	100	May	300		150
Total First Year's Marks—(30 required for passing),		..	..	..	..
Total Second Year's Marks—(30 required for passing),		..	..	..	..

MATERIALS AND CONSTRUCTION (150)

Materials,	..	January	30	30					
Blackwork,	..	March	30	30					
Carpentry,	..	April	15	15					
Masonry,	..	June	30	30					
Joinery,	..	June	15	15					
Students are expected to be familiar with the specimens of Indian Building Materials in the College and and in Station work, and with the simple details of practical work carried on at the Canal Foundry, the brick-making works in progress in the Station.									
Total First Year's Marks—(30 required for passing),		..	..	..	..
Total Second Year's Marks—(30 required for passing),		..	..	..	..

SUBORDINATE

ENGINEERING

Exercises	Topics and portions	FIRST YEAR				SECOND YEAR			
		During year		Total in examination	Total	First Year Marks out of 100	During year		Total
		Date	Grade				Date	Grade	
Buildings	Roofs, Journal of Buildings	"	"	"	"	"	November	20	20
Bridges	" " " Machinery	"	"	"	"	"	January	20	20
Roads	" " " Roads	"	"	"	"	"	February	20	20
Hydraulic Works	Hydraulic Works from the Bridge and Works	"	"	"	"	"			
Students will be taught the special points of importance in <u>Lower</u> Subordination in <u>Engineering</u> of the branches of work noted above									
Total Second Year's Marks—(80 required for passing)						"	"	60	100

LOWER SUBORDINATE CLASS.

1911-12 (100)

LOWER SUBORDINATE CLASS.

1888

Sub-divisions	Tests and questions	First Year				Second Year				Grand Total	
		During year		Final Ex- amination	Total	First Year Backed out	During year		Final Ex- amination		
		Date	Marks				Date	Marks			
Carpenter's Forge, Turning and Filing, Foundry,	<p>1. <i>Job's Lesson in Carpentry,</i> <i>Knight's Mechanism,</i> " " " <i>and Dyer's Job's Lesson</i> <i>in Engineering Workshop Practice,</i> <i>Spratt's Casting and Foundry, "</i></p> <p>The marks for these courses will be given as follows --</p> <p>work during the Course, 50 per cent. of marks</p> <p>Concluding Examination in May, 50 per cent. of marks.</p>	May	50								
Total First Year		Marks--(16 required for passing)		..	..				

LOWER SUBORDINATE CLASS. **PROGRESS WORK (90).**

Sub-divisions	Tests, books and problems	FIRST YEAR				SECOND YEAR				Grand Total	
		During year		Final Ex- amination	Total	During year		Final Ex- amination	Total		
		Term	Books			Term	Books				
Penmanship	O'Neil's Penmanship Printing Process. Marks will be given as follows -- Practical work during the course, 15 Continuing Examination, 5 Total 20					Term	20		20		
Total Second Year's Marks—(6 required for passing).										20	

PHYSIQUE (190).

Sub-divisions	Tests.	Second Year Marks.
Athletic Sports, Health, General Fitness,	Proficiency in Games, &c., Marks awarded by Medical Officer or Civil Surgeon in charge of College, Fitness for the Department,	20 20 20
	Total,	180

ELEMENTARY MATHEMATICS

Sub-division	Text-books and portions	FIRST YEAR			SECOND YEAR			THIRD YEAR			Grand Total
		During year		Final Ex- amination	During year		Final Ex- amination	During year		Final Ex- amination	
		Marks	Grade		Marks	Grade		Marks	Grade		
Arithmetic, ..	Coomes's Arithmetic,			40							
Algebra, ..	Toddhunter's Algebra for Colleges,			80							
Geometry, ..	Toddhunter's Elements of Euclid,			80							
Trigonometry, ..	Toddhunter's Plane Trigonometry,			80							
Mensuration, ..	Toddhunter's Mensuration for De- scribed,			80							
	Chambers' Mathematical Tables										
Total First Year's Marks—(100 required for passing),				400							400
Total .. Marks—(earned forward), ..											
Total Third Year's Marks—(earned forward), ..											
											400

TEACHERS' CLARK.

1911

WINTER CLASS

[illegible]

Q The Columbia is an optional course and obligatory for Co. Thayer students only. Is it required for students who will not receive any credits for this subject in their senior and third years?

MECHANICAL DYNAMICS (360).									
Mechanics, Part I., {		Hicks' Elementary Dynamics, {		Very					
" II., {		April		40		120		170	
77				20					
Total		Marks—(40 required for passing), ..		60		120		170	
Total Second Year's Marks—(current format), ..		..		..		30		170	
Total Third Year's Marks—(86 required for passing), ..		..		..		..		170	

ENGINEER MECHANICS

Subject	First Year				Second Year				Third Year			
	During year		Total		During year		Total		During year		Total	
	Date	Marks	Final Mark	Percentage	Date	Marks	Final Mark	Percentage	Date	Marks	Final Mark	Percentage
Stability of Structures	March	60	60	60	March	30	30	30	Jan'y	30	120	120
Strength of Materials	March	60	60	60	May	10	20	20	May	30	30	30
Mechanics	April	30	30	30								
Hydro-Mechanics	April	30	30	30								
Proposed												
First Year's Marks—(60 required for passing), ..		70	110	130								
Total Second Year's Marks—(70 required for passing)		..	..	..		40	100	200				
Total Third Year's Marks—(100 required for passing)		..	..	..		..	..	..		110	120	310

* The Thompson Gold Medal is awarded for excellence in this Project, upon a total of 300 marks. The Project includes a Survey, Diagrams, Plans, Calculations and report of same with, Plans, Machinery, Plans, Machinery, etc., as laid down for the year.

Applied Mechanics	..	60	120	120
Civil Engineering	..	30	30	30
Drawing	..	30	30	30
Surveying	..	30	30	30

REMARKS

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ENGINEER CLASS. NATURAL SCIENCE (300)

Sub-divisions	Text-books and portions	FIRST YEAR				SECOND YEAR				THIRD YEAR			
		During year		Final marks in examination	Total	During year		Final marks in examination	Total	During year		Final marks in examination	Total
		Date	Marks			Date	Marks			Date	Marks		
Geology.	Geddes's Class Book of Geology,					March	50	50					
Mineralogy,	Bischoff's Descriptive Mineralogy,	Feb	50	50								100	
Chemistry,	Dumas's Lessons in Elementary Chemistry,									April	30	30	
Electricity and Magnetism,	Gauss's Physics, ..	May	50	50								40	
Heat, Sound and Light,	Faraday's Notes on Heat and Lightning Conductors,												
Total First Year's Marks--(80 required for passing),			100	500									
Total Second Year's Marks--(80 required for passing),			..	..		100	50	150					
Total Third Year's Marks--(100 required for passing),			..	..		..	..	..		75	30	300	300

COPIES OF STATE,

1888

NEWCOMER CLASS

[illegible]

And yet, by some way or means, I think we have

	Yearbook and portfolios	First year		Final Ex amination	First year marks out- standing	During year		Final Ex amination	Second year marks out- standing	During year		Second year marks out- standing	Grand Total
		Date	Marks			Date	Marks			Date	Marks		
Specification, Quantities, Notes, Project,	Exercises Manual of Descriptive Students will be given several trial Examinations while study- ing this subject. A complete set of the work selected as the Project for the year. See under Applied Mathemat- ics					Sept	80	80	80	May	90	90	100
Total Second Year's Marks—(80 required for passing),													
Third Year's Marks—(80 required for passing),													

ACCOUNTS (80)

Accounts,	Public Works Department Code, Ingles' Book-keeping, will be given in this subject,												
Total Third Year's Marks—(80 required for passing),													
Third Year's Marks—(80 required for passing),													

ENGINEER CLASS.

MATERIALS AND CONSTRUCTION (180).

Subjects	Text-books and references	FIRST YEAR				SECOND YEAR				THIRD YEAR			
		During year		Total	Final Ex-amination	During year		Total	Final Ex-amination	During year		Total	Final Ex-amination
		Date	Months			Date	Months			Date	Months		
Materials,	Reeches Manual of Materials, ..	Dec	10	100	80								
Earthwork,	" " Earthwork, ..	Dec.											
Carpentry,	" " Carpentry, ..	March	30										
Masonry,	" " Masonry, ..	May	30										
Ironwork,	Hearn's Iron and Steel Man- ufacture, ..	June	30										
Students are expected also to be familiar with the specimens of material in the Museum and with the practical work carried on at the Canal Foundry, the bridge table and other works in progress in the Station.													
Total First Year's Marks—(80 required for passing),		...	120	100	200								
Total Second Year's Marks—(80 required for passing),		...	...	...	...	100							
Total Third Year's Marks—(80 required for passing),		...	...	...	...	...				100			
												80	100

	First Year	Second Year	Third Year
	Bidding Year Months	Bidding Year Months	Bidding Year Months
	Final M ^y - Installation	Final M ^y - Installation	Final M ^y - Installation
	Total	Total	Total
	First Year Marked off	Second Year Marked off	Third Year Marked off
	Date	Date	Date
Buildings,			
" Bridges,			
" " Roads,			
" " Railways,			
Tunnels and Min- ing,			
Hydraulic Works,			
Engi- neering, Water Supply,			
Mechanical Engi- neering,			
Notes on Works on Project,			
Total Second Year's Marks—(60 required for passing),
Total Third Year's Marks—(800 required for passing),

THE UNIVERSITY OF CHICAGO

ENGINEER CLASS.
MATERIALS CONSTRUCTION (180)

ORDER OF WORK:

[illegible]

ENGINEER CLASS.
LABORATORIES (100)

[illegible]

WINTER CLASS. WORKSHOPS 150.

[illegible]

ENGINEER CLASS PROGRESS WORK (40)

Task books and portfolios	First Year				Second Year				Third Year			
	During year		Total	Final year	During year		Total	Final year	During year		Total	Final year
	Date	Marks			Date	Marks			Date	Marks		
Photography, ..												
Ensayes, ..												
<p>Albee's Instructions in Photo-graphy</p> <p>O'Neil's Vernisage Printing Process.</p> <p>Ensayes with marks are awarded as follows —</p> <p>work 15</p> <p>course, 15</p> <p>Crediting Ensayes in .. 5</p> <p>February-December, .. 5</p> <p>Total, .. 20</p>												
<p>72—Only a partial number of Students can be traced in Photography. The marks allotted for this subject will be extracted from the totals of Students who have not been instructed.</p>												
<p>Total Second Year's Marks—(6 required for passing),</p> <p>First Year's Marks—(12 required for passing),</p>												

4
ENGINEER CLASSE.
PHYSIQUE (250)

Sub-division.	Dated	Total Marks.
Gymnastics, ..	Volunteers are not required to pass in Gymnastics and are marked for drill, shooting, &c.,	50
Athletic Sports, ..	Proficiency in Games, &c., "	75
Health, ..	Marks awarded by Medical Officer or Civil Surgeon in charge of College.	75
General Fitness,	Fitness for the Department, "	75
	Total,	250

ENGINEER CLASSE.

106

INTERVIEW

BOUY-MEATYK STEAKHOUSE

[illegible]

TELEGRAPH CLASS.

MATHEMATICS

Sub-division	Tests and particulars	FIRST YEAR			SECOND YEAR			THIRD YEAR		
		During year		Final Ex-amination	During year		Final Ex-amination	During year		Final Ex-amination
		Month	Date		Month	Date		Month	Date	
Co-ordinate Geo- metry, .. Conic Sections, ..	Toddhunter's Conic Sections, Driver's Geometrical Conic Sec- tions, ..	10	50							
Differential Cal- culus, .. Integral Calculus, ..	Toddhunter's Differential Cal- culus, .. Toddhunter's Integral Calculus, ..				Dec.	20	80			
Year's Marks—(80 required for passing),		10	50	60						
Year's Marks—(80 required for passing),				60	Dec.	20	80			
Total Third Year's Marks—(80 required for passing),										180

Note—The following persons are exempted from the examination in the subject of Mathematics, who take up the Calculus and take less than the marks required for passing, will not count any marks for their second and third years, nor will the marks obtained for the Calculus be included in the final result of their course.

MECHANICS (260)

Minimum Part I	Part I	Jan	40	180						180
" " II	Part II	April	30							
Year's Marks—(80 required for passing),				60	150	180				
Year's Marks—(80 required for passing),										
Total Third Year's Marks—(80 required for passing),										180

TELEGRAPH CLAM.

APPLIED MECHANICS

Sub-division	Task-books and sections	FIRST YEAR				SECOND YEAR				THIRD YEAR			
		During year		Final Ex-amination	Final Ex-amination	During year		Final Ex-amination	Final Ex-amination	During year		Final Ex-amination	Final Ex-amination
		Date	Marks			Date	Marks			Date	Marks		
Stability of Structures.	Routledge Applied Mechanics, "	March	40	60		March	30	60		July	25	80	
Strength of Materials.	" Thompson's Electro-Magnet, "					May	10	30					
Mechanics.	" Love's Hydrostatics, "	April	20	50						April	20		
Hydro-Mechanics.	Baker's Elementary Hydrostatics, "												
"	Students will also be practised in taking discharges of Rivers, Canals and Distribution.												
"	Calculations, "												
"	Year's [] required []		10	110	160								
Total	Year's Marks—(76 required for passing).						40	100	250				
Total	Third Year's Marks—(85 required for passing).									116	25	80	260

* The Project includes a Survey if necessary, and the Design, Plan, Estimate and Report of same made in connection with Director or Telegraph Engineering to last data for the year

Applied Mechanics.	Marks
Structure.	20
Hydrostatics.	20
Hydrodynamics.	20
Strength of Materials.	20
Hydro-Mechanics.	20
Total.	100

TELEGRAPH CLAM.

DRAWING (370)

Subject	Text books and particulars	FIRST YEAR			SECOND YEAR			THIRD YEAR		
		During year	Month	Final Exam	During year	Month	Final Exam	During year	Month	Final Exam
Theory of Drawing.		10	March	30	10	April	30	10	April	30
Orthographic		10	March	30	10	April	30	10	April	30
Isometrical		10	March	30	10	April	30	10	April	30
Free-hand and Model		10	March	30	10	April	30	10	April	30
Mechanical		10	March	30	10	April	30	10	April	30
Blindwork		10	March	30	10	April	30	10	April	30
Perspective		10	March	30	10	April	30	10	April	30
Geometrical		10	March	30	10	April	30	10	April	30
Outside College		10	March	30	10	April	30	10	April	30
Project Drawing		10	March	30	10	April	30	10	April	30
Total First Year's Marks—(40 required for passing),		100		100	100		100	100		100
Total Second Year's Marks—(60 required for passing),		100		100	100		100	100		100
Total Third Year's Marks—(120 required for passing),		100		100	100		100	100		100

THE GRAPH CLASS.
SURVEYING (200).

[illegible]

the day.
 to say that we are not
 to be in the way of
 the day.

TELEGRAPH CLASS.

ESTIMATING (100)

Sub-division	Text-books and materials	FIRST YEAR			SECOND YEAR			THIRD YEAR		
		During year	Final Ex- amination	Final mark out of 100	During year	Final Ex- amination	Final mark out of 100	During year	Final Ex- amination	Final mark out of 100
		Date	Mark		Date	Mark		Date	Mark	
Specifications, Questions, Tables, Project,	Electric Manual of Siemens Students will be given several trial Examinations while study- ing this subject. A complete estimate for the work selected as the Project for the year.				March	80	60	April	80	
Total Second Year's Marks—(25 required for passing),		..	..	..	..	80	60	..	..	100
Third Year's Marks—(16 required for passing),		..	..	..	..	..	..	..	..	..

REMARKS (80)

Account,	Public Works Department Code,									
	English Book-keeping.									
Total Third Year's Marks—(16 required for passing),		..	..	..	..	..	..	..	..	80

TECHNICAL CLASS.

BIBLIOGRAPHIC CLASS.

Sub-division	Total bills and payments	First Year			Second Year			Third Year		
		Dating	Month	Final Re- conciliation	Dating year	Month	Final Re- conciliation	Dating year	Month	Final Re- conciliation
Materials,	Materials of Materials,	Dec	40							
Barbwire,	" " Barbwire,									
Carpentry,	" " Carpentry,	May	20							
Masonry,	" " Masonry,	March	20							
Lumberwork,	Thorn's Iron Works, Mass- achusetts,	June	20							
			180	100	200					
	Materials—(88 required for paving),		..	..	..	100				100
	Year's Materials—(88 required for paving),		..	..	..	..				..
	Total Third Year's Materials—(80 required for paving),		..	..	..	..				100

TELEGRAPH CLASS

[illegible]

— Das ist ein wunder, feines Getränk.

TELEGRAPH CLASS.

TELEGRAPH CLASS.
LABORATORIES (150).

Sub-division	Tests-books and particulars	FIRST YEAR			SECOND YEAR			THIRD YEAR			Grand Total
		Date	Marks	Total	Date	Marks	Total	Date	Marks	Total	
Chemical,	Thomson and Star's Qualitative Analysis, Thomson's Analysis of Lime and Cement Stones.										
Physical,	Glacchards and Shaw's Practical Physics, Fleming's Electrical Laboratory Notes and Forme.				May			June 100			
Electrical,	Kemp's Handbook of Electrical Fitting.										
Mechanical,	Thomson's Training of Materials of Construction.										
	The marks for these Courses will be given as follows — 80 per cent. of marks work during the course, 80 per cent. of marks Concluding Examination in May-June, 50 per cent. of marks.										
Total Second	Marks—(10 required for passing).		..	..			80			80	
Total Third	Marks—(50 required for passing).		..	..		..	..		100	..	150

THE GRAPPI CLASS

WORKSHOP Q&A

[illegible]

TELEGRAPH CLASS.

PHYSIQUE (250).

Sub-Division	Detail	Total Test Marks
Gymnasium, ..	Volunteers are not required to pass in Gymnasium and are marked for drill, shooting, etc., ..	36
Athletic Sports, ..	Proficiency in Games, Ac.,	75
Health, ..	Marks awarded by Medical Officer or Civil Surgeon in charge of College,	75
General Fitness,	Fitsness for the Department,	75
		Total, ..
		260

COURSE OF STUDY,

UPPER SUBORDINATE CLASS. ELEMENTARY MATHEMATICS (400).

Sub-division	Text-books and portions	FIRST YEAR				SECOND YEAR			
		During year		Total	Marks secured	During year		Total	Marks secured
		Date	Month			Date	Month		
Arithmetic,	Colson's Arithmetic,			50					
Algebra,	Colson's Algebra, Part I, (to the end of Quadratic Equations),	February	30	50					
Geometry,	Oppe's Geometry, (Chapters 1, 2, 3 and 4),	December	30	50		December	30		
Trigonometry,	Toddhunter's Trigonometry for Beginners, (first 14 Chapters),			40					
Measurement,	Toddhunter's Measurement for Beginners,	March	30	50					
	<i>N.B.</i> —Only half the marks for Trigonometry gained in first year are carried forward to the second year.								
Total First	Marks—(150 required for passing),	..	..	50	270	200		340	
Total Second Year's	Marks—(125 required for passing),	..	..	..	..	..	..	60	400

MECHANICS (100)

Mechanics	No. XIV, Simple Applied Mechanics,	March		January	20	20	100
		20	40				
Total First Year's	Marks—(50 required for passing),	..	..	..	..	..	..
Total Second Year's	Marks—(25 required for passing),	..	..	..	..	..	..

UPPER SUBORDINATE CLASS. APPLIED MECHANICS

Sub-Division	Textbooks and problems	FIRST YEAR				SECOND YEAR			
		During year		Final examination	Final mark	During year		Final examination	Final mark
		Tests	Exams			Tests	Exams		
Stability of Structures	XIV Simple Applied Mechanics.					March			60
Increased Strength of Materials.	Januarius's Elementary Applied Mechanics.					May			28
Mechanics.	Januarius's Elementary Applied Mechanics.					July			30
Hydro-Mechanics.	Love's Hydrostatics.								
Project.	Students will also be practised in making discharges of rivers, canals and distributaries.								
	Calculations.								
Total First Year's Marks—(18 required for passing).		10	10	20	40				96
Total Second Year's Marks—(61 required for passing).		..	..	..	..				100

* The Project includes a Survey, Design, Plan, Section and Report of same work, as laid down for this year.

Applied Mechanics.

Drawing.

30

30

15

15

70

30

Total Marks.

SCIENCE (50)

Physiology.	Thurston's Elementary Physiology.	June	20						
Total First Year's Marks—(16 required for passing).		..	..	20	20				
Total Second Year's Marks—(16 required for passing).		..	..	..	..	20	20		50

UPPER SUBORDINATE CLASS

DRAWING (300)

Sub-division	Text-books and particulars	FIRST YEAR				SECOND YEAR				
		During year		Total Marks	Total No. of questions	Total	During year		Total Marks	Total No. of questions
		Date	Marks				Date	Marks		
Theory of Drawing Courses to be drawn in College Elementary and General Topographical, Industrial, and Mechanical Free-hand and Model Mechanical Designing Architectural Shadows Perspective Geometrical Courses to be drawn outside College. Isometric Drawings.	Revised Methods of Drawing Term Examinations. Students are expected to complete the regular detailed _____ for each year, working in the College, by the end of June. Any drawings remaining after this date in the First year may be finished in College during the Second year, but will only receive one-half value in marks. _____ in Applied Mechanics.	April	10			March	30			
						July	20 35 15 5 15 10			
Total First Year's Marks—(45 required for passing).		.. ..	120	120				170	300
Total _____ Marks—(100 required for _____)										

SUBORDINATE CLASS.

UPPER SUBORDINATE CLASS. SURVEYING 1950.

Sub-divisions	Text-books and references	FIRST YEAR				SECOND YEAR				Grand Total	
		During year		Final Ex- amination	Total	During year		Final Ex- amination	Total		
		Days	Marks			Days	Marks				
Use and Adjustment of Instruments, Levels in the field, Ground Tracing, Curves and Align- ments, Surveying, Station Surveying, .. " Levels, .. " Traverses, .. Demonstration, .. Project, ..	Roberts Manual of Surveying										
	"Form Examination, ..	January April	16 26								
	" "										
	" "										
	"Form Examination, ..				40	February	30				
	Instructions in the field and independ- ent surveys of all classes		45 50								
	Survey for the Project given out for the year, Applied Mechanics					July	15				
	See Note under Applied Mechanics										
	Total First Year's Marks--(18 required for passing)	160	40	100					
	Total Second Year's Marks--(30 required for passing)						950

This will include a practical Demonstration in the field, and should thoroughly test the capabilities of each student.
Not less than 8 hours to be done in the day

SUBORDINATE

ESTIMATING (100)

Sub-division	Tests and particulars	FIRST YEAR				SECOND YEAR			
		During year		Total Examinations	Total	During year		Total Examinations	Grand Total
		Date	Marks			Date	Marks		
Specifications, ..	Manual of Estimating Students will be given several oral Examinations while studying this subject. .. ▲ complete Estimate for the work as the Project for the year, .. as the Project for the year, .. Note under Applied Mechanics					February	15		
Quantities, ..						April	20		
Plans, ..						July	15		
Proposals, ..									
Total Second Year's Marks—(85 required for passing)...			..	..	..			50	100

ACCOUNTS (50)

Accounts	Tests and particulars	FIRST YEAR				SECOND YEAR			
		During year		Total	First year marks out of	During year		Total marks out of	Grand Total
		Date	Marks			Date	Marks		
Accounts	Public Works Department Code, ..								
	Loggia's Book-keeping, ..					January	20	20	
	Loggia's Book-keeping, ..								
Total Second Year's Marks—(15 required for passing)...			..	..			

**UPPER SUBORDINATE CLASS.
LANGUAGES (80).**

Sub-Minutes	Text-books and particulars	FIRST YEAR				SECOND YEAR			
		During year		Total	Days to year	During year		Total	Days to year
		Days	Marks			Days	Marks		
English,	by Examinations in writing from dictation, reading, and composition, ..	December	90	■					
Total First Year's Marks—(10 required for passing),		" "	90	■					
Total Second Year's Marks—(10 required for passing),		" "	90	■					50

MATERIALS AND CONSTRUCTION (60).

Materials,	Books: Manual of Materials, ..	January	30	25					
Earthwork,	" " Earthwork, ..	March	15	45					
Carpentry,	" " Carpentry, ..	May	20						
Masonry,	" " Masonry, ..	May	15						
Ironwork,	Students are expected also to be familiar with the specimens of materials in the Museum, and with the practice carried on in the Foundry, brick-works, and other ..								
Total First Year's Marks—(10 required for passing),		" "	90	20					

UPPER SUBORDINATE CLASS. PRACTICAL ENGINEERING (370).

UPPER SUBORDINATE CLASS.

11

Sub-divisions	Text-books and publications	First Year				Second Year				Total	First Year Marks	Second Year Marks	Grand Total
		During year		Total	During year		Total						
		Date	Marks		Date	Marks							
Buildings, Bridges, Roads, Railways, Hydraulic Works, Pneumatics, Notes on Works,	Horliss Manual of Buildings, " " Bridges, " " Roads, " " Railways, " " Hydraulic Works, The Engineering of the Project given out for the year, See Note under Applied Mechanics, Each Student will keep a Note Book and record in it descriptions and sketches of every material, manufacture or works visited by him. Advantages will be taken of every work of repair or construction under execution in or near Florence and of suitable examples in the Workshops by careful inspection both under the supervision of a master and independently. Full notes and sketches are to be recorded by Students in their note books, which are to contain no transcriptions from their text books. All sketches should be done in pencil, and the date of each visit to a work invariably recorded at the head of the notes referring to the same. These note-books will be inspected once a month, and marks will be awarded at the end of each session.		40			March May June July	25 25 15 60	90 90 90 90 90	125 125 125 125 125	270			
Total First Year's Marks—(18 required for passing),		..	..	..	..					40	..	..	..
Total Second Year's Marks—(60 required for passing),		..	..	..	..					..	..	..	..

UPPER SUBORDINATE CLASS.

WORKSHOPS (100).

621

COURSE OF STUDY,

Sub-divisions	Text-books and questions	First Year				Second Year			
		During year		Total	Marks	During year		Total	Marks
		Date	Marks			Date	Marks		
Carpenters', .. Forge, .. Turning and Filing, ..	<p>Mitchell's Forty Lessons in Carpentry Workshop Practice,</p> <p>Angels's Mechanisms,</p> <p>Sprentzen's Chiseling and Planing, ..</p> <p>Kellogg's</p> <p>.. .. Dwyer's Forty ..</p> <p>.. Engineering Workshop Practice,</p> <p>The marks in these .. will be</p> <p>.. .. follows</p> <p>Practical .. during the</p> <p>.. ..</p> <p>Concluding .. in June, 20 ..</p> <p>per .. marks</p>	June	50			June			
First Year's Marks—(15 required for passing), .. ..		..	50	50	..	..	..	50	100
Total .. Year's Marks—(30 required for passing), .. ..		..	..	..	..	..	..	..	..

UPPER SUBORDINATE PROCESS WORK (40)

Sub-division	Task-title and particulars	First Year				Second Year			
		During year		Total	Percentage of total	First Year	During year		Total
		Date	Marks				Date	Marks	
Photography, Penotype,	<p>Abney's Instruction in Photography, O'Neill's Penotype Printing Process, Process work marks as follows --</p> <p>.. .. work during the Course, .. Consolidating in April-December 2</p> <p>Total, .. 20</p> <p>.. .. Only a limited number of Sta- tion can be trained in Photogra- phy marks for the subject will be the of who have instructed</p>						April December	.. ..
Total Second Year's Marks--(18 required for passing)		..	..	..	..	..		40	40

UPPER SUBORDINATE CLASS.

PHYSIQUE 0300

Sub-division		Second Year Marks
Gymnastics, ..	Volunteers are not required to pass in Gymnastics and are waived for drill, shooting, etc., ..	18
Athletic Sports, ..	Proficiency in Games, etc., ..	45
Health, ..	Marks awarded by Medical Officer, or Civil Surgeon in charge of College, ..	45
General Studies, ..	Fitness for the Department, ..	45
	Total, ..	150

LOWER SUBORDINATE

MATHEMATICS

Sub-divisions	Text books and particulars	First Year				Second Year				Grand Total
		During year		Total Ex-amination	Total	During year		Total		
		Date	Marks			Date	Marks			
Algebra,	Algebra, ..	February	20	20	February	20	20	40		
Geometry,	Wallace's Books, ..	May	20	20	May	20	20	40		
Trigonometry,	Toddhunter's Trigonometry for Beginners, ..	April	20	20	April	20	20	40		
Measurement,	Toddhunter's Measurements ..									
	Mathematical Tables.									
Total First Year's Marks—(40 required for passing), ..			40	40				80		
Total Second Year's Marks—(40 required for passing), ..			40	40				80		
Total Marks—(100 required for passing), ..			80	80				160		

Student,	No. XIV, Sample Applied Mechanics,	March	20	20	40
	Marks—(40 required for passing), ..				80

(b) BIRTHDATE [REDACTED]
 (c) TELEPHONE [REDACTED]

	Yearbooked portions	FIRST YEAR				SECOND YEAR			
		During year		Final Ex- amination	Total	During year		Total	
		Date	Marks			Date	Marks		
Stability of Structures	XIV, Simple Applied Mechanics, Gooden's Mechanics, Boettcher's Manual of Hydraulics, Students will also be practised in taking Discharges of rivers, canals and distributaries								
Strength of materials									
Hydro-Mechanics,									
Total Second Year's Marks—(30 assigned for pending),									

SCIENCE (80)

Physiography,	Galileo's Physical Geography,	February	10	20	30
Total First Year's Marks—(10 required for passing),					
		..	10	20	30
Total Second Year's Marks—(10 required for passing),					
		30

• To Whom

LOWER SUBORDINATE

DRAWING (350).

Sub-division	Text-book and particulars	First Year				Second Year				Grand Total
		During year		Marks	Date	During year		Marks	Date	
		Date	Marks			Date	Marks			
Theory of Drawing, General, College	Report of Drawing Term Examination, "									
Elementary and General, Topographical, Isometrical, Free-hand and Model, Designing, Architectural, Students,	Students are expected to complete the regular detailed exercise for each year, working in the College, by the end of June. Any drawings remaining after this date may be finished in College during the second year, but will only receive one-half value in marks.		100				30			
				</						

LOWER SUBORDINATE CLASS. SURVEYING GEOLOGICAL

Sub-division	Text-books and particulars	First Year				Second Year			
		During year		Practical (hours per week)	Total	During year		Practical (hours per week)	Total
		Term	Months			Term	Months		
Use and Adjustment of Instruments. Levels in the Field. Ground Tracing, Curves and Alignments. Surveying.	Reed's Manual of Surveying								
	" Term Examination, ..	January	30			February	30		
	" " " " "	March	30			April	30		
	" " " " "								
	" Final Examination, ..				25				
Station Surveying, .. " Levels, .. " Traversing, .. Demonstration, ..	Instruction in the field and independent surveys of all kinds.			90					
				90					
				90					
				90					
Total First Year's Work—(60 required for passing).		..	25	205	200	..	..	90	850
Total Second Year's Work—(116 required for passing).		..	..	..	..	..	..	..	..

* This will include a practical Examination in the field and should thoroughly test the acquirement of each student.
† Not less than 3 miles to be done in the day.

LOWER SUBORDINATE CLASS.

RENTAL DISCOUNT

[illegible]

LOGOUT (80)

[illegible]

LOWER SUBORDINATE CLASSES **LANGUAGES (50)**

Sub-divisions	Text-books and particulars	FIRST YEAR				SECOND YEAR			
		During year		Total	First year	During year		Total	Grand Total
		Date	Marks			Date	Marks		
English,	<i>College Text-Books</i> Students will be acquainted in English dictation, reading and in translation from English into Urdu and from Urdu into English.	December	60	60		December	100		
Total First Year's Marks—(50 required for passing),		"	"	"	60			60	160
Total Second Year's Marks—(50 required for passing),		"	"	"	"		100	"	100

MATERIALS AND CONSTRUCTION (150)

Materials,	Books: Manual of Materials,	January	25						
Mathewick,	" " " " " " " "	March	20						
Carpentry,	" " " " " " " "	April	15						
Masonry,	" " " " " " " "	June	20						
Ironwork,	" " " " " " " "	June	10						
Students are expected to be familiar with the specimens of Indian Building Materials in the College and used in practical work, and with the simple details of practical work carried on at the Canal Four days the brick-fields and works in progress in the Station									
Total First Year's Marks—(50 required for passing),		"	"	"	60	60	150		150
Total Second Year's Marks—(50 required for passing),		"	"	"	"	"	"	150	

LOWER SUBORDINATE CLASS. **PRACTICAL ENGINEERING (OO).**

Sub-branches	Text-books and particulars	FIRST YEAR				SECOND YEAR			
		During year		Practical Instruction	Total	During year		Practical Instruction	Grand Total
		Days	Hours			Days	Hours		
Buildings,	Roofs Manual of Buildings, "			.					
Bridges,	" " Masonry, "								
Boats,	" " Boats, "								
Hydraulic Works,	Selections from the Irrigation Works, "								
	Students will be taught the special points of importance to Lower Subordination in the Engineering of the branches of work noted above								
Total Second Year's Marks—(as required for passing)				..	..			80	100

LOWER SUBORDINATE CLASS.

200

LOWER SUBORDINATE

(100)

Sub-divisions	Trade and profession	First year				Second year			
		During year		Total	Grand No. examination	Total	First year	May	During year
		Pass	Marks						During year
Carpenter's	Mitchell's Forty Lessons in Carpentry,	May	50						
Joiner's	Engle's Mechanism, "								
Turner and Plumber	" and Jerry's Forty Lessons in Engineering Workshop Practice,								
Boiler-maker	Sprenter's Casting and Foundry, "								
	Marks in these will be given as -								
	50 per cent. of marks.								
	(Including Examination in May, 50 per cent. of marks.								
Total First Year		50	50	50	50	50	50	50	50
Total		50	50	50	50	50	50	50	50

Total First Year Marks—(10 required passing)

Total Marks—(10 required passing)

LOWER SUBORDINATE CLASS.

PROCESS WORK

Sub-division	Terms and portions	First Year				Second Year			
		During year		Total	First year marks on	During year		Total	Second year marks on
		Date	Marks			Date	Marks		
Neurology,	O'Neill's Twenty to Pruning Process, Practical work during the course, 15 Concluding Examination, 5 Total 20					January	20		
Total	Year's Marks—(6 required for passing),		20		20

PHYSIQUE (120).

Sub-division.	Terms.	Second Year Marks.			
		During year		Total	Second Year Marks.
		Date	Marks		
Athletic Sports, Health, General Fitness,	Proficiency in Games, &c ; Marks awarded by Medical Officer or Civil Surgeon in charge of College, Fitness for the Department,	..	..	..	20 20 20
	Total,	..	..	..	120

DRAFTSMAN AND COMPUTER

(300)

Art-divisions	Text books and portions	FIRST YEAR			SECOND YEAR			THIRD YEAR		
		During year		First year marks and percentage	During year		Second year marks and percentage	During year		Third year marks and percentage
		Date	Marks		Date	Marks		Date	Marks	
Arithmetic	.. Colenso's Arithmetic	Dec	30	30						
Algebra	.. Haddon's Algebra	Feb	30	40						
Geometry	.. Wallace's Euclid	May	30	40						
Trigonometry	.. Todhunter's Trigonometry for Beginners	..			Feb	30	40			
Measurement	.. Todhunter's .. Euclidean Mathematical Tables	April	30	40						
Total First Year's Marks--(90 required for passing) ..			90	170	200					
Total Second Year's Marks--(100 required for passing)			..	..				
Total Third Year's Marks--(100 required for passing)			..	..				
										320

LEADS TO SUCCESS

DRAFTSMAN AND COMPUTER

MECHANICS

Sub-Subjects	Questions and particulars	FIRST YEAR				SECOND YEAR				THIRD YEAR			
		During Year		Final Ex-amination		During Year		Final Ex-amination		During Year		Final Ex-amination	
		Ratio	Marks	Ratio	Marks	Ratio	Marks	Ratio	Marks	Ratio	Marks	Ratio	Marks
Struct.	.. No XIV, sample Applied Mechanism, ..												
Total Second Year's Marks—(16 required for passing), ..					20		20		20		20		20
Total Third Year's Marks—(18 required for passing), ..													30

APPLIED MECHANICS (60).

Stability of Structures, ..	XIV, Sample Applied Mechanism, ..												
Strength of Materials, ..	Gooden's Mechanisms, ..												
Mechanism, ..	..											
Total Second Year's Marks—(18 required for passing), ..													
Total Third Year's Marks—(20 required for passing), ..													30

DRAFTSMAN AND COMPUTER CLASS. SURVEYING (360).

Sub-division	Textbooks and particulars	First Year			Second Year			Third Year		
		During year		Practical marks out of 100	During year		Practical marks out of 100	During year		Practical marks out of 100
		Date	Month		Date	Month		Date	Month	
Use and Adjustment of Instruments, ..	Requisite Manual of Surveying									
Levels in the field, ..	"									
Ground Tracing, ..	"									
Curves and Alignments, ..	"									
Surveying, ..	"									
Station Survey, ..	"									
" Levelling, ..	"									
" Traversing, ..	"									
Densitometry, ..	"									
Total First Year's Marks—(60 required for passing), =				50						
Total Second Year's Marks—(110 required for passing), =				90						
Total Third Year's Marks—(90 required for passing), =				80						
Total Marks—(240 required for passing), =				220						

* This will include a practical examination in the field, and should thoroughly test the competence of each student.
† Not less than 8 marks to be done in the day

DRAFTSMAN AND COMPUTER CLASS.

[illegible]

(09) 21110001

Accounts,	"	Public Works Department Code,		July	20	20
Total Second Year's Marks—(16 required for passing),	"	"	"	20	20	20
Total Third Year's Marks—(16 required for passing),	"	"	"	"	"	20
						20

LANGUAGES (180)

College Test-books	Dec.	80	80	100	Dec	80
by examined in English dictations and reading and in translations from English into Urdu and from Urdu into English						
Total First Year's Marks—(\$0 required for passing).	..	80	100			
Total Second Year's Marks—(\$0 required for passing).	100	100	150
Total Third Year's Marks—(\$0 required for passing).

DRAFTSMAN AND COMPUTER AID

2000

Sub-divisions	Text-books and particulars	FIRST YEAR			SECOND YEAR			THIRD YEAR		
		During year	From	To	During year	From	To	During year	From	To
Materials	Bourges Manual of Materials	25	25							
Barthwork	" "	30	30							
Carpentry	" "	15	15							
Masonry	" "	30	30							
Lumbers	" "	10	10							
	Students are expected to be familiar with the contents of Indian Building College used on Station work, and with the simple details of practical work carried on at the Canal Foundry, the brick-fields and works in progress in the station									
	Year's Math—(40 required for passing)	90	90	120						
	Year's Math—(35 required for passing)	..	..	..			
	Year's Math—(40 required for passing)	..	..	..			
Bricks	Bourges Manual of Bricks									
	" " Bricks									
Total Third Year's Math—(35 required for passing)		..	..	..			

DRAFTSMAN AND COMPUTER CLASS.

PROCESS WORK (40).

Sub-Section	Text books and publications	First Year				Second Year				Third Year			
		During year		Total	Final year marks out of 100	During year		Total	Final year marks out of 100	During year		Total	Final year marks out of 100
		Date	Marks			Date	Marks			Date	Marks		
Photography.	Burton's Modern Photography.									April	20		
"	O'Reilly's Phototype Printing												
"	Process.												
"	Process' work marks will be awarded as follows:—												
"	Practical work during the course.												
"	Concluding Examination in January-April					July	20						
"	Total.												
"	Notes—Only a limited number of students can be trained in Photography. The marks allotted for this subject will be excluded from the totals of students who have not been instructed.												
Total Second Year's Marks—(5 required for passing).			..	..			20					20	
Total Third Year's Marks—(15 required for passing).			..	..			..	..	..		20		40

COURSE OF STUDY,

1934

DEAFTEMAN AND COMPUTER CLASS.

PHYSIQUE (120).

	Points	Total	Total Year Merit.
Athletic Sports, ..	Proficiency in Games, etc., ..	..	20
Health, ..	Marks awarded by Medical Officer or Civil Surgeon in charge of College, ..	..	20
General Fitness,	Fitness for the Department, ..	..	50
	Total,	..	120

DEAFTEMAN AND COMPUTER CLASS.

21234

MECHANICAL APPRENTICE CLASS.

MATHEMATICS

Sub-division	Text-books and portions	FIRST YEAR				SECOND YEAR				THIRD YEAR			
		During year		Final %	Total marks at end of year	During year		Final %	Total marks at end of year	During year		Final %	Total marks at end of year
		Date	Marks			Date	Marks			Date	Marks		
Arithmetic	Colenso's Arithmetic	Feb.	30	50									
Algebra	Haddon's Algebra	March	30	40									
Geometry	Wallace's Euclid	March	30	40									
Trigonometry	Technical's Trigonometry for	June	10	20		March	10	20					
Mineralogy	Beginners	June	30	40									
	Technical's Mineralogy for	June	30	40									
	Beginners	June	30	40									
	Technical's Mathematical	June	30	40									
Total First Year's Marks—(50 required for passing)...			100	150	200								
Total Second Year's Marks—(100 required for passing)...			...	...	...				100	20	20		
Total Third Year's Marks—(100 required for passing)...			...	...	...				...	...	...		100

MECHANICS (100).

Mechanics	Jamieson's Elementary Applied Mechanics	April	20	20		April	20	20					
Total First Year's Marks—(10 required for passing)...			20	20	20								
Total Second Year's Marks—(20 required for passing)...			...	...	...				20	20	20	100	
Total Third Year's Marks—(20 required for passing)...			...	...	...				...	...	...	...	100

MECHANICAL APPRENTICE CLASS

CONVERTING

Name of Candidate	First Year				Second Year				Third Year			
	Rank	Month	Day	Score	Rank	Month	Day	Score	Rank	Month	Day	Score
Strength of Materials, Hydraulics, Medium, Hydro-Mechanics,												
Total Second Year's Marks—(60 required for passing),												
Total Third Year's Marks—(60 required for passing),												

STATION 11

Electrically and Magnetism, ..	Gordon's School Electricity, ..										May	15	90	
Bent, ..	..... the .. English,										May	25	60
Total Third Year's Marks—(32 required for passing),												40	90	100

MECHANICAL APPLICATOR CLASS

DRAWING (350)

[illegible]

ESTIMATING (80)

Specification, ..	Exercises Manual of Examination					
Quantities, ..	Students will be given several					
Rates, ..	trial Examinations while studying this subject.					
Total Second Year's Marks—(36 required for passing)	..	..	90	90	90	80
Total Third .. Marks—(36 required for passing)	..	..	..	..	..	80

MECHANICAL APPRENTICE

[illegible]

REPUTATION

English,	College Test-Books, Pencil and Ink	July	80	80	80	80	80	80	80
	English dictation								
	and in translations								
	and in Urdu and Urdu								
	into English								
	First		80	80	80	80	80	80	80
	Second		80	80	80	80	80	80	80
	Third		80	80	80	80	80	80	80
	Fourth		80	80	80	80	80	80	80
	Fifth		80	80	80	80	80	80	80
	Sixth		80	80	80	80	80	80	80
	Seventh		80	80	80	80	80	80	80
	Eighth		80	80	80	80	80	80	80
	Ninth		80	80	80	80	80	80	80
	Tenth		80	80	80	80	80	80	80
	Eleventh		80	80	80	80	80	80	80
	Twelfth		80	80	80	80	80	80	80
	Thirteenth		80	80	80	80	80	80	80
	Fourteenth		80	80	80	80	80	80	80
	Fifteenth		80	80	80	80	80	80	80
	Sixteenth		80	80	80	80	80	80	80
	Seventeenth		80	80	80	80	80	80	80
	Eighteenth		80	80	80	80	80	80	80
	Nineteenth		80	80	80	80	80	80	80
	Twentieth		80	80	80	80	80	80	80
	Twenty-first		80	80	80	80	80	80	80
	Twenty-second		80	80	80	80	80	80	80
	Twenty-third		80	80	80	80	80	80	80
	Twenty-fourth		80	80	80	80	80	80	80
	Twenty-fifth		80	80	80	80	80	80	80
	Twenty-sixth		80	80	80	80	80	80	80
	Twenty-seventh		80	80	80	80	80	80	80
	Twenty-eighth		80	80	80	80	80	80	80
	Twenty-ninth		80	80	80	80	80	80	80
	Thirtieth		80	80	80	80	80	80	80
	Thirty-first		80	80	80	80	80	80	80
	Thirty-second		80	80	80	80	80	80	80
	Thirty-third		80	80	80	80	80	80	80
	Thirty-fourth		80	80	80	80	80	80	80
	Thirty-fifth		80	80	80	80	80	80	80
	Thirty-sixth		80	80	80	80	80	80	80
	Thirty-seventh		80	80	80	80	80	80	80
	Thirty-eighth		80	80	80	80	80	80	80
	Thirty-ninth		80	80	80	80	80	80	80
	Fortieth		80	80	80	80	80	80	80
	Forty-first		80	80	80	80	80	80	80
	Forty-second		80	80	80	80	80	80	80
	Forty-third		80	80	80	80	80	80	80
	Forty-fourth		80	80	80	80	80	80	80
	Forty-fifth		80	80	80	80	80	80	80
	Forty-sixth		80	80	80	80	80	80	80

MECHANICAL APPRENTICE CLASS.

MATERIALS

Sub-division	Test-books and publications	First Year			Second Year			Third Year			Grand Total	Grand Total Marks	Grand Total Points
		During year	Month	Date	During year	Month	Date	During year	Month	Date			
Carpentry, Joinery, etc.	Reeve's Manual of Materials..												
	" " " Carpentry ..												
	" " " Joinery ..												
	" " " Students are expected to be familiar with all classes of materials used in the Canal Foundry, and with the practical details of the work carried on there												
Total Second Year's Marks—(35 required passing)											35	35	180
Total Third Year's Marks—(35 required for passing)											35	35	180

LABORATORIES (35)

Mechanical,	Upole's Testing of Materials of construction.												
	The marks for this course will be given as follows --												
	Practical work during the course, ..												
	Concluding Examination in June, ..												
Total, ..											35	35	180
Total Third Year's Marks—(10 required passing)											10	10	180

MECHANICAL APPRENTICE CLASS.
WORKSHOPS 04401.

[illegible]

MECHANICAL APPRENTICE CLARK

PROCESSES WORK (40)

Sub-divisions	Text-books and periods	FIRST YEAR						SECOND YEAR						THIRD YEAR						Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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MECHANICAL APPRENTICE

MECHANICAL APPRENTICE CLASS.

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Sub-division.	Detail.				Third Year Marks.
Admission Examin.	50
Examin.	50
Practical	50
			Total,		150

Book.	Sub-head.	English Class.	Telegraph Class.
Elementary Mathematics.	Arithmetic, ..	Colenso's Arithmetic.	.. ..
	Algebra, ..	Todhunter's Algebra for Colleges.	.. ..
	Geometry, ..	Todhunter's Elements of Euclid.	.. ..
	Trigonometry, ..	Todhunter's Plane Trigonometry.	.. ..
	Mensuration, ..	Todhunter's Mensuration for Beginners. Chambers's Mathematical Tables.	.. .. Chambers's Mathematical Tables.
Higher Mathematics.	Co-ordinate Geometry, ..	Todhunter's Conic Sections.	.. ..
	Conic Sections, ..	Deane's Geometrical Conic Sections.	.. ..
	Differential Calculus, ..	Todhunter's Differential Calculus.	Todhunter's Differential Calculus.
	Integral Calculus, ..	Todhunter's Integral Calculus.	Todhunter's Integral Calculus.
Mechanics.	Mechanics, ..	Hicks' Elementary Dynamics.	.. ..
Applied Mechanics.	Stability of Structures, Strength of Materials, ..	Roorda's Applied Mechanics, T. C.	Roorda's Applied Mechanics, T. C.
	Mechanics, ..	Gooden's Elements of Mechanics.	Thompson's Electro-Magnetism.
	Hydro-Mechanics, ..	Love's Hydraulics. Rauert's Elementary Hydraulics.	.. ..
Natural Sciences.	Phylography, ..	.. ..	.. ..
	Geology, ..	Geake's Class Book of Geology.	.. ..
	Mineralogy, ..	Bancroft's Descriptive Mineralogy.	.. ..
	Chemistry, ..	Rauert's Lessons in Elementary Chemistry.	.. ..
	Electricity and Magnetism, ..	Poole's Notes on Testing Lightning Conductors.	Ayrton's Electricity.
	Heat, Sound, ..	Garnet's Physics.	.. ..
	Light, ..	.. ..	.. ..

FOURTH YEAR COURSE.

Upper Subdivision.	Lower Subdivision.	Disjunctive and Composite	Mechanical Subdivisions.
Colenso's Arithmetic. Colenso's Algebra, Part I Cape's Geometry, T O.	Colenso's Arithmetic Colenso's Algebra. Cape's Geometry.	.. .. .. .. .. ..	Colenso's Arithmetic Colenso's Algebra. Cape's Geometry.
Todhunter's Trigonometry for Beginners. Todhunter's Mensuration for Beginners. Roorkes Mathematical Tables, T O	Todhunter's Trigonometry for Beginners. Todhunter's Mensuration for Beginners. Roorkes Mathematical Tables, T O	Todhunter's Trigonometry for Beginners Roorkes Mathematical Tables, T O.	Todhunter's Trigonometry for Beginners. Todhunter's Mensuration for Beginners. Roorkes Mathematical Tables, T O
..
..
..
..
No XIV Simple Applied Mechanics, T O	No XIV Simple Applied Mechanics, T O	No XIV Simple Applied Mechanics, T O	Jamieson's Elementary Applied
No XIV Simple Applied Mechanics, T O Jamieson's Elementary Applied Mechanics Jamieson's Elementary Applied Mechanics. Hydraulics.	No XIV Simple Applied Mechanics, T O Goodere's Mechanics. * Roorkes Manual of Hydraulics, T O	No XIV Simple Applied Mechanics, T O Goodere's Mechanics. Goodere's Mechanics.	Jamieson's Elementary Applied Mechanics. Jamieson's Elementary Applied Mechanics. Jamieson's Elementary Applied Mechanics.
Thornton's Elementary Physiography	Thornton's Physical Geography	.. ..	.. ..
..
..
..
.. ..	.. ..	.. ..	.. .. School Electricity Warren's Boat and the Steam Engine.

and need not be purchased by students.

* To be loaned.

Book.	Subject.	English Class.	Telegraph Class.
Drawing, ..	Drawing, ..	Roarkes Manual of Drawing, T C	Roarkes Manual of Drawing, T C
Surveying, ..	Surveying, ..	Roarkes Manual of Surveying, T C	Roarkes Manual of Surveying, T C
Estimating, ..	Estimating, ..	Roarkes Manual of Estimating, T C	Roarkes Manual of Estimating, T C
Accounts, ..	Accounts, ..	Public Works Department Clerk Ingis' Book-keeping	Public Works Department Clerk Ingis' Book-keeping.
Language, ..	English, ..	.. ..	.. ..
Materials and Construction,	Materials, ..	Roarkes Manual of Materials, T C	.. ..
	Earthwork, ..	Roarkes Manual of Earthwork, T C	.. ..
	Carpentry, ..	Roarkes Manual of Carpentry, T C	.. ..
	Masonry, ..	Roarkes Manual of Masonry, T C	.. ..
	Ironwork, ..	Hoar's .. and Steel Manufacture	.. ..
Practical Engineering,	Buildings, ..	Roarkes Manual of Buildings, T C	Roarkes Manual of Buildings, T C
	Bridges, ..	Roarkes Manual of Bridges, T C	.. ..
	Roads, ..	Roarkes Manual of Roads, T C	.. ..
	Railways, ..	Roarkes Manual of Railways, T C	.. ..
	Tunnels and Mining, ..	Greenwell's .. Engineering	.. ..
	Hydraulic Works, ..	Roarkes Manual of Irrigation Works	.. ..
	Sanitary Engineering, ..	Hendall's Lectures, S.M.E.	.. ..
	Water Supply, ..	Hendall's Lectures, S.M.E.	.. ..
	Electrical Engineering, ..	Minor's Water Supply of Barracks and Camps	.. ..
	Electrical Engineering, ..	Sligo and Brooker's Electrical Engineering and Jamieson's Pocket Book.	Sligo and Brooker's Electrical Engineering and Jamieson's Pocket Book.

Note.—Works printed in italics are Text-books

THREE YEARS' COURSE—(continued).

Upper Subordinate.	Lower Subordinate.	Draftsmen and Computers.	Mechanical Subordinates.
<i>Booke's Manual of Drawing, T C</i>	<i>Booke's Manual of Drawing, T C</i>	<i>Booke's Manual of Drawing, T C</i>	<i>Booke's Manual of Drawing, T C</i>
<i>Booke's Manual of Surveying, T C</i>	<i>Booke's Manual of Surveying, T C</i>	<i>Booke's Manual of Surveying, T C</i>	" "
<i>Booke's Manual of Estimating, T C</i>	<i>Booke's Manual of Estimating, T C</i>	<i>Booke's Manual of Estimating, T C</i>	<i>Booke's Manual of Estimating, T C</i>
<i>Public Works Department Code</i>	<i>Public Works Department Code</i>	<i>Public Works Department Code</i>	<i>Public Works Department Code</i>
<i>Engin' Book keeping</i>	" "	" "	" "
<i>College Text-books</i>	<i>College Text-books</i>	<i>College Text-books</i>	<i>College Text-books</i>
<i>Booke's Manual of Materials, T C</i>	<i>Booke's Manual of Materials, T C</i>	" "	<i>Booke's Manual of Materials, T C</i>
<i>Booke's Manual of Earthwork, T C</i>	<i>Booke's Manual of Earthwork, T C</i>	" "	" "
<i>Booke's Manual of Carpentry, T C</i>	<i>Booke's Manual of Carpentry, T C</i>	<i>Booke's Manual of Carpentry, T C</i>	<i>Booke's Manual of Carpentry, T C</i>
<i>Booke's Manual of Masonry, T C</i>	<i>Booke's Manual of Masonry, T C</i>	<i>Booke's Manual of Masonry, T C</i>	" "
<i>Booke's Manual of Materials, T C</i>	<i>Booke's Manual of Materials, T C</i>	<i>Booke's Manual of Materials, T C</i>	<i>Booke's Iron and Steel Manufacture</i>
<i>Booke's Manual of Buildings, T C</i>	<i>Booke's Manual of Buildings, T C</i>	<i>Booke's Manual of Buildings, T C</i>	" "
<i>Booke's Manual of Bridges, T C</i>	<i>Booke's Manual of Bridges, T C</i>	<i>Booke's Manual of Bridges, T C</i>	" "
<i>Booke's Manual of Roads, T C</i>	<i>Booke's Manual of Roads, T C</i>	" "	" "
<i>Booke's Manual of Railways, T C</i>	" "	" "	" "
" "	" "	" "	" "
<i>Booke's Manual of Irrigation Works, T C</i>	<i>Booke's Manual of Irrigation Works, T C</i>	" "	" "
" "	" "	" "	" "
" "	" "	" "	" "
" "	" "	" "	" "

and need not be graduated by Students.

TEXT-BOOKS FOR

Book	Sub-head	English Class.	Telegraph Class.
Practical Engineering (contd.)	Telegraph Engineering.	" "	France and Ravenright's Telegraphy France and Moler's Telephones Williams's Manual of Telegraphy Testing Instructions, Vol. I Telegraph Diagrams.
Laboratories.	Mechanical, Chemical, Physical, Electrical,	Unwin's Testing of Materials of Construction Thorpe and Muir's Qualitative Analysis Thomson's Analysis of Limes and Cement Stones Glossbrook and Shaw's Practical Physics Fleming's Electrical Laboratory Notes & Forms	Unwin's Testing of Materials of Construction Thorpe and Muir's Qualitative Analysis Thomson's Analysis of Limes and Cement Stones Glossbrook and Shaw's Practical Physics Fleming's Electrical Laboratory Notes & Forms Kemp's Handbook of Electrical Testing
Workshops.	Carpenter's, Forge, Foundry, Turning and Fitting.	Mitchell's Forty Lessons in Carpentry Workshop Practice Knight's Mechanician Spence's Casting and Foundry Knight's Mechanician Mitchell and Davey's Forty Lessons in Engineering Workshop Practice	Mitchell's Forty Lessons in Carpentry Workshop Practice Knight's Mechanician Spence's Casting and Foundry Knight's Mechanician Mitchell and Davey's Forty Lessons in Engineering Workshop Practice
Process Work.	Photography, Typotype,	Abney's Instruction in Photography Perrot's Printing Process, T C	Abney's Instruction in Photography Typotype Printing Process, T C

Note.—Works printed in Italics are

THREE YEARS' COURSE—(continued)

Upper Subdivision.	Lower Subdivision.	Discussions and Computations.	Mechanical Subdivisions.
1. 1888	.. ..	.. ..	2.
.. ..	.. ..	.. ..	Union's Testing of Materials of Construction.
..
..
Forty Lessons in Carpentry Workshop Practice. Knight's Mechanics in Sprague's Casting and Foundry. Knight's Mechanisms in Mitchell and Davy's Forty Lessons in Engineering Workshop Practice.	Forty Lessons in Carpentry Workshop Practice. Knight's Mechanisms in Sprague's Casting and Foundry. Knight's Mechanisms in Mitchell and Davy's Forty Lessons in Engineering Workshop Practice.	.. .. .. .. .. .. .. ..	Wilson's Carpentry and Joinery. Knight's Mechanisms in Sprague's Casting and Foundry. Knight's
Abney's Instruction in Photography Phototype Printing Process, T. C.	.. .. Phototype Printing Process, T. C.	Hutton's Modern Photography Phototype Printing Process, T. C.	Hutton's Modern Photography Phototype Printing Process, T. C.

and need ~~not~~ purchased by students.

SCALE OF MARKS.

	English Class.	Technical Class.	Upper Subdivisions.	Lower Subdivisions.	Computer	Mechanical Subdivisions.
Elementary Mathematics.	400	440	400	400	280	280
Higher Mathematics.	100	140	..	..	80	..
Mechanics.	300	360	100	100	80	100
Applied Mechanics.	310	380	100	100	80	120
Natural Science.	300	380	80	80	..	100
Drawing.	400	370	300	300	400	340
Surveying.	400	360	240	240	280	..
Estimating.	100	140	100	100	300	80
Accounts.	80	80	80	80	80	80
Languages.	..	..	80	80	80	80
Machinery and Construction.	180	180	180	180	180	180
Practical Engineering.	680	680	270	270	80	80
Laboratory.	100	180	100	100	..	1,440
Workshops.	180	180	100	100	40	40
Process Work.	40	40	40	40	..	120
Physics.	280	280	180	180	..	..
Total.	2,700	2,400	2,100	2,100	2,170	3,000

TABLE SHOWING	WEEK END DAY	IN COLLEGE
SUBJECT		

[illegible]

HALF DAY PERSONS FOR WORK

[illegible]

2. Generalized Anxiety Disorder

Engineer Class,		1st Year		2d Year		3d Year		4th Year		5th Year		6th Year		7th Year		8th Year		9th Year		10th Year		11th Year		12th Year		13th Year		14th Year		15th Year		16th Year		17th Year		18th Year		19th Year		20th Year		21st Year		22nd Year		23rd Year		24th Year		25th Year		26th Year		27th Year		28th Year		29th Year		30th Year		31st Year		32nd Year		33rd Year		34th Year		35th Year		36th Year		37th Year		38th Year		39th Year		40th Year		41st Year		42nd Year		43rd Year		44th Year		45th Year		46th Year		47th Year		48th Year		49th Year		50th Year		51st Year		52nd Year		53rd Year		54th Year		55th Year		56th Year		57th Year		58th Year		59th Year		60th Year		61st Year		62nd Year		63rd Year		64th Year		65th Year		66th Year		67th Year		68th Year		69th Year		70th Year		71st Year		72nd Year		73rd Year		74th Year		75th Year		76th Year		77th Year		78th Year		79th Year		80th Year		81st Year		82nd Year		83rd Year		84th Year		85th Year		86th Year		87th Year		88th Year		89th Year		90th Year		91st 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HALF DAY PER WEEK FOR STUDY IN COLLEGE—(continued).

Class	Subject	November	December	January	February	March	April	May	June	July	Total
1st Year.	Elementary Mathematics,	..	..	..	..	..	..	..	..	..	..
	Mechanics,	..	..	..	..	..	..	..	..	..	..
	Applied Mechanics,	..	..	..	..	..	..	..	..	..	..
	Physiography,	..	..	..	..	..	..	..	..	..	..
	Drawing,	..	..	..	..	..	..	..	..	..	..
	Surveying,	..	..	..	..	..	..	..	..	..	..
	English,	..	..	..	..	..	..	..	..	..	..
	Materials and Construction,	..	..	..	..	..	..	..	..	..	..
	Workshops,	..	..	..	..	..	..	..	..	..	..
	Total,	12	12	12	12	12	12	12	12	12	12
2nd Year.	Mechanics,	..	..	..	..	..	..	..	..	..	..
	Applied Mechanics,	..	..	..	..	..	..	..	..	..	..
	Drawing,	..	..	..	..	..	..	..	..	..	..
	Surveying,	..	..	..	..	..	..	..	..	..	..
	Boasting,	..	..	..	..	..	..	..	..	..	..
	Accounts,	..	..	..	..	..	..	..	..	..	..
	Practical Engineering,	..	..	..	..	..	..	..	..	..	..
	Project,	..	..	..	..	..	..	..	..	..	..
	Workshops,	..	..	..	..	..	..	..	..	..	..
	Process Work,	..	..	..	..	..	..	..	..	..	..
	Total,	12	12	12	12	12	12	12	12	12	12
Preparation and Final Examination											12
Total											12

Figures show approximate number of points each month.

HALF DAY PERIODS PER WEEK FOR STUDY IN COLLEGE--(continued)

[illegible]

2.2—Subsequent years show approximately doubling of juvenile case counts.

[illegible]

THE NEW YORK TIMES

RESULTS OF THE EXAMINATIONS

2345

[illegible]

[illegible]

BRITISH MILITARY SURVEYING CLASS.

(Extract from Army Regulations, India, Vol. II., para. 1331).

A Class is constituted annually at the Thomson College, Roorkee, under the instruction of a Non-Commissioned Officer of the Bengal Presidency in Surveying and Reconnaissance. The Class opens on the 1st November, and closes on the 31st July following.

1. Commanding Officers and Quarter-Master-Generals in India, Simla, on the 1st September of each year, nominal Non-Commissioned Officers whom they recommend to join the Class.

2. Only those who volunteer to attend the Class, and who are of exceptionally good character, should be recommended, the turn should be given to the qualifications in Surveying, if any, of each candidate, his aptitude for the work, and also whether, in the opinion of the Commanding Officer, he is likely to be fitted for an Instructor in Surveying, regimentally or otherwise.

Those selected for instruction must have completed three years' army service, they will be required before being admitted to the Class to have completed their service in twelve years with the colours and should have served four years longer in India.

It is desirable that the candidates should have passed by Standard Hindustani, but this qualification is not obligatory.

From the selection of the 8 men to attend the Annual Class, due notification will be given to Commanding Officers in view to the despatch of the men so as to reach the College on the date specified.

Married men if selected for the Class must be accompanied by their wives or families, as there is no accommodation at the College.

7. A qualified Non-Commissioned Officer is appointed to the Class, who will be appointed for one year, and during the time the Class is undergoing training he will be granted the pay

BRITISH MILITARY SURVEYING CLASS.

of a Color-Sergeant of Infantry. Higher rank and status will only be granted, in special cases.

8. Each member of the Class receives a special allowance of Rs. 7-8 per mensem, in addition to his Regimental pay while undergoing the course at the College.

Each member having passed successfully will receive Rs. 10 per mensem so long as he is doing duty with the Regiment in India, and provided he is an annual holder by a District in which he is serving he shows that he has maintained a perfect knowledge of the subjects during his course in the College; if he fail to pass this test, the allowance will be withheld the next year by order of the General Commanding.

The rank of Non-Commissioned in receipt of this special allowance of Rs. 5 per mensem shall be shown in the Nominal Roll furnished annually by Commanding Officers.

Orders for grant of certificates are now as follows:—

To obtain the higher certificate, a member must gain two-thirds

marks in Surveying and two-thirds full marks in total.

To gain the ordinary certificate, half marks in Surveying and half marks in total must be gained.

OF COURSE.

Drawing.

Marks, 100.

I.—Italo Printing.

II.—Block

III.—Construction of

IV.—Heights and Distances.

V.—Geometrical Figures.

VI.—Conventional Signs.

VII.—Plan of a Survey.

VIII.—Map Enlarging.

IX.—Map Reducing.

X.—Hill shading in Masrotint.

XI.—

XII.—Examination (Conventional Signs, Scales, Heights and Distances).

NATIVE INDIAN SURVEYING CLASS.

(Extract from *Army Regulations, India, Vol. II, para 1331A*).

A course is conducted annually at the Thomason College, Boorkee, for the instruction of a limited number of Native Officers, Non-Commissioned Officers and Men of the Bengal Native Army in Surveying and Road Reconnaissance.* The Class is formed on 1 June and closes on the 1 March following.

(c). Commanding Officers will forward to the Quarter-Master General in India, Simla, punctually on 1st February of each year, Officers, Non-Commissioned Officers — Men, whom they recommend to join the Class, in the order of preference in which they would wish them to be selected when more than are submitted. From these returns selection will be made for the available vacancies, which will usually be 10 Men. Accommodation is not available at the College for the families of Students or for their horses.

(b). Only [redacted] who are likely [redacted] make good surveyors should [redacted] recommended, and they should be qualified [redacted] Urdu [redacted] Nagri notation [redacted] 10 [redacted] up to and including decimal fractions

(c). A qualified Non-Commissioned [redacted] or Soldier will be appointed Assistant Instructor of [redacted] Class, [redacted] while so employed will [redacted] allowances prescribed in Army Regulations, India, Volume I, Part II, Article [redacted].

(d). With reference to Art 353, Army Regulations, Volume I, IP, the following are down for regulating permanent to Non-Commissioned Military Survey —

I. They will be required to furnish on [redacted] September [redacted] year following [redacted] in which they leave [redacted] College, a [redacted] of a post- [redacted] (not [redacted] rule). - a [redacted] report (of [redacted])

Distribution of Studies and

June,	}	Drawing.
July,		
August,		
September,	Theoretical	
October,	}	Prismatic Compass and Plane Table sketching.
November,		
December,		
January,	}	Contouring and sketching in Camp in the country.
February,		
March,			Finishing

will take place in the following manner:—

Marks.

1st Examination.	End of November or beginning of December.	
	of position with Prismatic Compass or Plane Table,	50
	Beginning of January.	
	Road reconnaissance with Prismatic Compass,	50
2nd Examination.	Final Examination, March.	
	of position with Prismatic Compass and road reconnaissance with contours, and report, ..	

The Marks for the whole Course will be allotted as follows:—

	Mathematics.				Surveying				Grand Total.
	Arithmetic.	Geometry.	Trigonometry.	Total.	Work in the Field, under instruction.	Work in the Field, independent.	Examinations.	Drawing.	
Full Marks,	20	20	40	100	50	150	200	200	700
Higher Certificate,	—	—	—	—	—	100	133	—	467
Ordinary	—	—	—	—	—	75	100	—	350

JUNIOR CIVILIAN SURVEY CLASS.

(Sanctioned by N.-W. P. and Oudh C. No. ²⁴⁴¹ 1-000A, Dated 22nd September, 1893).

An Assistant Collector attending the Survey Class at Lucknow is under the orders of the Principal of the College and of the Assistant Principal in charge of the Survey Class.

2. He will study such portions of the Thomason College Manual of Surveying and other works as may be indicated by the Principal or Assistant Principal.

3. He will receive such theoretical instruction as may be necessary in Chain Surveying, Surveying with the Prismatic Compass and with the Tacheometer Table, and in the use of the Optical Square and the Theodolite.

4. He will then be sent under the guidance of a selected Assistant with the qualifications of a Kanungo to undertake the field survey of a Mouza or portion of a Mouza. Two chainmen will be allowed in each Mouza.

5. Each Assistant Collector will be required to make the boundary survey of a village or block within a village, and then to fill in the detailed survey of the Mouza within the village or a portion of the village or block.

6. He should make himself thoroughly conversant with the manner in which the kharas are prepared from the map, with the classification of the land as cultivated, culturable, or uncultivated, and the various measurements of soils. He should also learn how the other Patwari papers, of the village that is being surveyed, are prepared, especially the khewat, the khatamni, and the jamabandi. The all the points the Kanungo will afford the necessary instruction.

7. He will also be instructed how to take out areas both by estimation and by the use of the area square, and he will take out the area of all fields in the Mouza surveyed.

- (1). [redacted] with the use of the prismatic compass and [redacted] protractor and [redacted] instruments.
 - (2). Construction [redacted] of scales.
 - (3). Traverse [redacted] a polygon [redacted] theodolite and [redacted] of [redacted] 200 [redacted]
 - (4). Working [redacted] of [redacted] [redacted] traverse table.
 - (5). Plotting [redacted] above
 - (6). Traverse and plot of a polygon with plane table and chain with [redacted] theodolite plot.
 - (7). [redacted] survey of polygon of 200 [redacted]
 - (8). Extracting of [redacted] and other [redacted] of [redacted] [redacted] with [redacted] [redacted] by mensuration.
 - (9). Running check lines on survey villages or board plane direct, [redacted] also, in [redacted] and plotting [redacted]
 - (10). Writing up [redacted] khawat and khapuri [redacted] about 150 fields.
-

ANNUAL PRIZES.

THOMASON ANNUAL PRIZES.

ENGINEER CLASS.

THE COUNCIL OF INDIA PRIZE OF Rs. 100.
To the most distinguished Student who shall obtain the Higher Certificate of qualification as Assistant Engineer.

THE THOMASON GOLD MEDAL.
To the Student who shall furnish the best Engineering Design of the year, of a minimum excellence.

THE CAVTLEY MEDAL.
To the best Mathematician in the College who shall obtain less than two-thirds the total marks

THE THOMASON PRIZE OF Rs. 100.
To the most distinguished Native Student who shall obtain the Higher Certificate

RAJ BAHADUR KUNHYA LAL'S GOLD MEDAL.
For the Native Student of the year who shall obtain the maximum Prize

MACLAGAN'S PRIZE. VALUE Rs. 40.
For Experimental Science

LIEUT.-COLONEL CLERKSON'S PRIZE—SILVER MEDAL.
For Civil Engineering.

ANNUAL PRIZES.

class

HIGH SCHOOL MAHARAJAH VISHNUSAGAN'S PRIZE VALUE
Rs 40.

For the best Athlete among successful Native Engineer Class
Students of the year.

COLLEGE PRIZES. VALUE ABOUT Rs. 50.
SURVEYING. | DRAWING. | PHOTOGRAPHY.

UPPER SUBORDINATE CLASS.

KRAY MEMORIAL PRIZE. VALUE ABOUT Rs. 40.
For the best Calculator in the Class

RAI BHADUR KUSHYA LAL'S SILVER MEDAL.
For the best Native in the Class.

COLLEGE PRIZES. VALUE ABOUT Rs. 50.

GENERAL MERIT.	SURVEYING.
MATHEMATICS.	DRAWING
CIVIL ENGINEERING.	PHOTOGRAPHY.

LOWER SUBORDINATE CLASS.

COLLEGE PRIZES VALUE ABOUT Rs. 50.

GENERAL MERIT.	SURVEYING.
MATHEMATICS.	DRAWING.
CIVIL ENGINEERING.	PHOTOGRAPHY.

RAI BHADUR KUSHYA LAL'S SILVER MEDAL.
For the best Native in the Class

*Colonel Macleagan's instructions regarding the Prize for Physical Science.
Extract from his letter, Lahore, 21 February, 1884.*

The Prize should continue to be given annually for excellence in the study of Physical Science in which excellence is given in the College at the time, if the most successful Student is considered deserving.

I would suggest the Prize should, as heretofore, consist of useful and appropriate books. Hitherto it has been a bound copy of Humboldt, "Cosmos," by Sabine. And I suggest the Prize should continue to be given until a better or more useful book can be obtained, at a cost of Rs. 100 amount provided. This should be determined annually by the Principal of the College and the Professors of Physical Science together, under the approval of the Local Government to which the College belongs, and that the book may, as far as possible, be in accordance with the recognised progress of Physical Science, and representative of the knowledge of the day.

RULES FOR SPECIAL EXAMINATIONS.

Besides the regular entrance, periodical, and final Examinations the Students, the College undertakes the Examinations of direct appointments in the several branches of the P. W. Department, including Assistant of Accounts and Accountants, Grade, and also promotion from the Lower to the Higher Grades of the Upper Subordinate and Accounts Branch.

REGARDING PROMOTION OF OVERSEERS TO GRADE OF SUB-

(Extract from the Regulations for the Public Department, Vol I, Chapter II)

In ordinary the grades of the Upper Subordinate Establishment, above Overseer of the 1st Grade, will be by promotions from the lower to the superior grade.

70. Promotions will be made by selecting the individual who, from good conduct, superior management, and possession of a higher degree of professional knowledge, as evinced by his passing the Higher or College standard at Roorkee, shall be deserving of advancement.

71. will be admitted in, or promoted to, the grade of a Sub-Engineer holding a certificate showing that he has passed the examination in paragraph 70, that he is a person of a good character and special and superior qualifications as a practical Engineer.

The Higher Standard mentioned in para. of quoted above, is that passed by the most advanced Students of the Upper on conclusion of the Course of Study. For Overseers who passed it at Roorkee, who have been appointed otherwise than through Roorkee, who to qualify for promotion, the following is the Examination. It is

The Candidate's application should be submitted through the Departmental superior, to the Principal by February 1st.

LIST OF SUBJECTS.

Subjects.	Sub-heads.	Full Marks.
I. Mathematics,	1. Arithmetic,	100
	2. Geometry. Euclid, Books I. to IV. and VI., or Cape, Chaps. 1, 2, 5, and 6,	100
	3. Plane Trigonometry,	75
	4. Mensuration,	75
II. Mechanics,	5. Elementary Statics,	75
III. Estimating,	6. A Building or Bridge,	150
IV. Civil Engineering, ..	7. Materials and Construction,	150
	8. Applied Mechanics,	75
	9. Design (a simple Building or Bridge),	75
V. Surveying,	10. Questions,	75
	11. Theodolite Surveying,	100
	12. Levelling,	75
VI. Drawing, ..	13. Construction of Scales and Outline Figures,	50
	14. Architectural Drawing,	100
	15. Topographical do.,	75
VII. Native Language, ..	16. Written Exercise,	25
	17. Colloquial,	25
VIII. English, ..	18. Writing from Dictation,	40
	19. Reading,	10
Total,		1,500

To obtain a Certificate, the Candidate must gain at least one-half (750) of the total full marks, and not less than one-third in each separate sub-head.

The Candidate must furnish a list of the text-books used in the College, and procurable at the College Book Depot, see page xiii. He must also furnish a Medical Certificate in the form printed on page xiv; no other form will be accepted. This must accompany his application for Examination. No certificates will be issued unless the Candidate has attended courses may be sent.

Under the authority of Government, a fee of Rs. 10 must accompany application for examination, otherwise it will not be attended to.

OVERSEER.**REGARDING APPOINTMENTS OF "OUTSIDER" CANDIDATES
GRADE OF OVERSEER.**

(Extract from Code of Regulations for the Public Works Department,
Vol. I., Chapter II.)

Upper [redacted] [redacted] be appointed, [redacted] [redacted] [redacted] of [redacted] Majesty's Army in India, or [redacted] Civilians, (European or Native)

The qualifications of Candidates [redacted] be attested by Certificates from [redacted] Principals of the Government Civil Engineering Colleges.

The [redacted] will be held yearly in March, [redacted] as [redacted] below. Application should be submitted through [redacted] Engineer, [redacted] para. 61, Chapter II, [redacted] W. Code, Vol. I., [redacted] should reach [redacted] Principal complete by [redacted] February at latest.

LIST OF SUBJECTS.

Subjects	Sub-heads.	Full Marks.
I. Mathematics,	1. Arithmetic,	100
	2. Geometry. Euclid, Books I. & IV. and VI., or Cape, Chaps. 1, 3, 5, and 6,	100
	3. Mensuration,	100
	4. Trigonometry. Heights and Distances and solution of plane triangles,	100
II. Estimating,	5. A simple Building or Bridge,	150
III. Construction,	6. Building Materials and General Construction,	100
	7. Tracing on the ground,	25
	8. Applied Mechanics,	100
IV. Surveying, ..	9. Questions and Exercises,	50
	10. Compass Surveying,	75
	11. Levelling,	75
V. Drawing, ..	12. Scales and Figures,	50
	13. Architectural Drawing,	75
VI. Hindustani,	14. Writing Exercise,	50
	15. Colloquial,	25
English, -	16. Writing from Dictation,	40
	17. Reading,	10
Total,		1,325

To obtain a Certificate, the Candidate must gain at least one-half (512) of the total marks, and not less than one-third in each separate sub-head.

—For a list of the text-books used in the College, and procurable at the College Book Depot, see page 11. He must also furnish a Medical Certificate in the form printed on page xlv, no other form will be accepted. This Certificate must accompany his application for examination. No certificates will be returned. Stated copies may be sent.

Under the authority of Government, a fee of Rs. 10 must accompany the application for examination, otherwise it will not be attended to.

EXAMINATIONS IN THE MEDICAL BRANCH.

[Public Health Department Regulation No. 38 of 1893, dated 12 February, 1893]

(This Resolution contains Rules regarding examinations for confirmation and promotion in the Medical Branch in P. M. D. Code, Vol. I, Chap II, and Appendix C.)

Recruitment in the Establishment of the Medical Branch,* Public Works Department.

RESOLUTION.—The Government of India, with the approval of the Secretary of State, is pleased to decide that, with effect from 1st January, 1894, the following amended rules for recruitment in the Superior Staff of the Medical Branch, as regards the entrance and departmental tests, shall take the place of the rules promulgated in Regulation No. 19 A.E. of 1889, and laid down in the P. M. D. Code, Volume I, Chapter II, and Appendix C.—

I.—The Superior Accounts Branch shall be recruited in India, and shall be recruited in no other part of the Empire. The Ordinary Pension shall be laid down in the Civil Service Regulations, Chapter XIV. Part IV.

II.—Appointments shall ordinarily be made as follows.—

Firstly, by appointment of candidates by competitive examination of not less than three nominees in each branch;

* This rule is also applicable to the Traffic Department Examination, State Railways.

Secondly, by the promotion of deserving Accountants; ■■■

Thirdly, by the transfer, in exceptional cases, of officers from the Engineer establishment.

■■■—Officers transferred from ■■■ Engineering Branch will draw Accounts ■■■ rates ■■■ salary, ■■■ they ■■■ retain their own leave and pension rules.

The ■■■■ at every third ■■■■ held for appointments to be filled by the ■■■ of the above methods of recruitment, shall ■■■ natives of India ■■■ defined by ■■■ 33 Viet, cap 3, section 6. The maximum number ■■■ appointments filled by ■■■ second of the above methods shall not exceed one-third of the appointments ■■■ by the ■■■ and second methods together. When appointments ■■■ made by ■■■ and ■■■ selected will ■■■ appointed either as Deputy or ■■■■ Examiners at ■■■ discretion of ■■■ Government of India, ■■■ will, ■■■ Gov- ■■■■ otherwise direct, take rank for future promotion above officers ■■■ lower classes ■■■ grades previously appointed after examination. They will ■■■ ■■■ required to ■■■ the departmental examinations unless ■■■ Gov- ernment ■■■ the time of appointment direct that they shall be so required.

The Government of India reserves the power which ■■■ present possesses of making special and exceptional appointments ■■■ Superior Accounts Establishment otherwise than in the three ways mentioned above.

III.—The classification and rates ■■■ pay shall be as follows:—

■■■ of Account,	Class	1,	..	..	Rs.
"	"	II,	..	..	1,250
"	"	III,	..	..	1,000
"	"	IV,	..	..	750
Deputy Examiner of Accounts,	"	I,	..	..	■■■
"	"	II,	..	..	■■■
■■■ Examiner, 1st grade,	"	"	■■■
"	"	2nd	..	..	250
"	"	■■■	200

This scale of ■■■ will apply ■■■ appointments ■■■ the department after the ■■■ December, ■■■■

IV.—Persons desiring to enter ■■■ Superior Accounts ■■■■ obtain nominations from ■■■ Accountant General, Public ■■■ Department, ■■■ whose applications should ■■■ ad- dressed not later than ■■■ 31st January of each year.

Each application ■■■■ accompanied by ■■■ following certificates:—

(1). Baptismal or ■■■■ of ■■■■

- (ii). Certificate of physical fitness for the public service by a Commissioned Officer or by a Medical Officer in charge of a civil station.
- (iii). Testimonials of good moral conduct from the institution under whom the applicant has been educated or from some employer or other superior person whom he has been employed or brought up.

These testimonials shall be sent special reference to the rules of application, and shall be immediately proceeding the date of application.

The candidates will be examined whose age is not less than 18 years of completion of the examination is not less than 18 years. This rule applies to persons already in Government service.

V.—An examination will be held in which the nominated candidates will be required to compete for the vacant appointments which will be given, as a rule, to the successful candidates in order of merit in the examination.

VI.—The Accountant General will report annually to the Government of India, as heretofore, in January, the names of the Accountants, if any, in the subordinate service, whom he recommends for promotion to the superior service.

VII.—After orders have been passed on that report, a notification will be issued in the *Gazette of India* about the beginning of February, stating the number of appointments to be competed for in the examination, and the date on which it will be held.

The nominated candidates will be examined in the subjects described in the Schedule to the Resolution, and (subject to the conditions hereinafter stated) those who will be appointed Examiners, in grade, on probation, in order of merit, and the number of appointments announced for competition.

The candidate will be required to compete in the examination in the same manner as the candidates.

The examination will be conducted by written questions and answers, the questions being prepared in such manner as His Excellency the Governor-General in Council may from time to time direct.

A candidate may be examined in the Thomson Civil Engineering College, Haorkee, or at the office of an Examiner of Public Works or Railway Engineering.

2. There will, in future, be departmental examinations as detailed in Schedules II. and III. annexed to this Resolution, and an officer appointed on probation will be confirmed in the same until he has passed the same in these examinations, and has been favourably reported upon by the Accountant General.

An Assistant of the 3rd grade, who has been favourably reported on and has passed the lower departmental examination shown in Schedule II., will be promoted to Assistant Examiner, 2nd grade, and not less than one year's service in the Department. An Assistant Examiner who has not passed the examination within three years from the date of his joining the Department will, at the expiration of that period, cease to belong to the Department without further orders, provided that —

- (1), if he has been examined but the results have not been declared, his service will be retained until the date at which the results are declared, when they will be terminated at once if he has not passed, and
- (2), if during the said period of three years he has obtained leave of absence on medical certificate for more than three months, he shall be allowed as much extension of time as will admit of his appearing for the examination next after the expiry of the said term of three years and of the date of that examination being declared.

No officer will be eligible for promotion above Assistant Examiner, 2nd grade, unless he has passed the higher departmental examination, and the same test in vernaculars as is required for promotion to Executive Engineer, 4th grade.

The Entrance Examination will be held by the Principal, Thomson Civil Engineering College, Roorkee, in November^a in the year 1887 and in June in subsequent years, and nominated candidates should apply to the Accountant General to arrange the place at which they are to be examined, and should remit to him the sum of Rs. 52, which will reach him with their application some time before November. The language to be proposed in the application.

The Departmental Examinations will be held annually by the

^a The Entrance Examination will be held during the last week in November, and in 1887 it will commence on the 22nd November. In subsequent years the Examination will be held in the first week in June.

General, Department, in November; and will be conducted in Examiners' offices.

SCHEDULE I.

for the Superior Branch of the Public

ESTRANGE EXAMINATION.

Subjects for Examination.

	Marks
Writing Composition, impromptu given subject,	150
English Literature,	100
English and (when Elementary) History,	100
Arithmetic (no text-book),	175
Euclid, Books I to IV and , also easy deductions,	150
Algebra, including progressions, permutations, and combinations, binomial theorem, and logarithms (text-book—Todhunter's Algebra),	100
Trigonometry* as far as of triangles (text-book—Todhunter's Plane Trigonometry),	100
Mensuration,	50
Latin, Greek, Sanskrit, French, German, Arabic, Persian, or Pali,	300
Geography, Asia (especially India), and Europe,	150
Total,	1,550

will be appointed the Department who obtains less than 650 marks in all, or less half marks in

SCHEDULE II.

LOWER DEPARTMENTAL EXAMINATION.

Subjects for Examination.

Composition, a price of papers not seen before,	50
Book-keeping (Text-book—V. K. Inglis),	50
Department Code, Volumes I, II, and III—(General and procedure of Buildings	50
Department of Railways under construction),	300
General's circular,	50
Regulations,	50
Total,	1,000

*The use of Logarithms will be allowed at the time of examination in Trigonometry only, with this exception no books are permitted in any of the papers.

SCHEDULE III.

[REDACTED] DEPARTMENTAL EXAMINATION.

Subjects for Examination.

[REDACTED] [REDACTED] a draft,	[REDACTED]
Civil Account Code, Volume I, Chapters 10, 17, 24 & Volume II, Chapters 32, 34, 35, 62, and 72, &c.	100
Political Economy (Mill),	200
Public Works Department Code, all volumes, but especially Volume IV—(The accounts of open lines of State Railways), and Accountant General's circulars and budget procedure, Book-keeping, including the principles of audit (Text-books—Carter's Practical Book-keeping and Pizley's Auditors),	[REDACTED]
Total,	1,000

I.—An officer who shows [REDACTED] any departmental examination a [REDACTED] potent knowledge of all the prescribed subjects, and obtains half marks in the aggregate, [REDACTED] held [REDACTED] have passed the examination. An officer is, however, permitted to pass each of the departmental examinations in two instalments if he notifies his intention beforehand, and specifies [REDACTED] subjects [REDACTED] which he is prepared for examination. In such [REDACTED] higher standard of knowledge is required.

II.—As a rule, a candidate failing in one of the subjects specified is re-examined in the whole, but [REDACTED] [REDACTED] of marked excellence in a subject [REDACTED] Accountant General may exempt the candidate from [REDACTED] in such subject, [REDACTED] although he may have [REDACTED] [REDACTED] others.

SUBORDINATE [REDACTED]

EXAMINATION QUALIFYING [REDACTED] FOR PROMOTION [REDACTED] THE [REDACTED] GRADE.

APPENDIX C, VOL. I., P. W. D. [REDACTED]

[REDACTED] [REDACTED] examination consists [REDACTED] three parts as follows:—

Part I.—General.

24. Examination in this part will be [REDACTED] by [REDACTED] Principal, [REDACTED] Civil Engineering College, Roorkee, in January, and applications to be registered [REDACTED] this test should reach the Accountant General's [REDACTED] [REDACTED] than the 1st December of each year.

English and Writing from Dictation,	75
Arithmetic, Colenso's,	75
Elementary Geometry, <i>Hatch</i> , Book I and Problems,	75
..... of <i>Hatch</i> <i>Solids</i> , <i>Talbot</i> 's,	75
Logarithms, use of,	75
General Geography, <i>Solomon</i> 's, II., Political and Local,	75
Total,	75

..... who have already passed in Writing Arithmetic and in Memorization Entrance Examination referred to in para. 2, need not be in subjects

..... the test, a Candidate must obtain then *three-quarters* of marks in Arithmetic, *one-half* marks in other subject, marks in total.

Part II.—Composition.

Part III.—Examination in Accounts.

26 examination papers for these will be furnished yearly from the Accountant General's in July and November respectively, on applications which should that not later than 1st June and 1st October respectively.

(See P. Code for further details).

APPOINTMENT AS ACCOUNTANT,

APPENDIX O—(continued).

1. As a general rule one will be admitted into Accounts Branch of Public Works Department otherwise than by entering as an Accountant, 4th Grade, before attains age years, until examination prescribed in para. 2.

2. following are exceptions to this rule—

- (1). A already in permanent Government employ* may be allowed to compete in if he is more years may be appointed to an Accountantship if he it; if he is already in service, will be eligible only for appointment to Non-pensionable Railways.

* This term includes employment under Local Boards and foreign bodies, if such is by the British Government.

(3). Upper Subordinate Executive Branch, who have passed the for Overseer only, will be required to pass special examination the Accounts Branch, in cases where Candidates shall have displayed capacity in their accounts shall be considered by the Government of India to prove their for the Accounts Branch, the special examination may be dispensed with.

(5). A Candidate who has passed the examination admittance Engineer of Thomson College, or who may minimum number marks required Examination for Superior Accounts Branch, but who fails to one of the appointments for competition, will be required examination, except in Book-keeping.

The qualifications of Candidates for appointment as Accountant, 4th Grade, will be attested by certificates from the Principal of one of Government Civil Engineering Colleges.

4. No degrees, diplomas, or certificates gained elsewhere, can be accepted as affecting the terms of the special examination. If any Candidate wishes to the question to whether any such degrees, &c., held by him can be admitted in lieu of the prescribed special examination, he should address Accountant General, Public Works Department, on this point.

5. Candidates for the Grade of Accountants will usually be examined by Thomson Civil Engineering College during the whole week in November, and by the Sibpur Civil Engineering College the Monday in June. The Examination will be instituted held (began and completed) on fixed, but who will conduct the examination may his arrangements regard to place and hour Examination with Candidates.

6. Examinations only at the Colleges, at the of an Examiner of Public Works Accounts (including Railway and Telegraphs) The Examinations of Thomson College only North-Western Provinces and Oudh, the Punjab, Central Provinces, Hyderabad, Central India, Rajputana, and Subper College, Bengal, Assam, only.

Note Candidates in Calcutta appearing for the Sibpur College Examination shall undergo Examination at the College

7. Candidates for the Thomson College Examination should apply to the Examiner of Accounts, at a station within the territorial limits fixed in the preceding paragraph for this Examination, not later than the 1st October, and Candidates for the Sibpur College Examination should similarly apply to an Examiner of Accounts within the limits fixed for this Examination, not later than 15 days previous to the date fixed for the Examination. Applications received after 15th October will not be considered. The Candidate should state whether he wishes to be examined at the College or at the office of the Examiner of Accounts to whom his application is made. The application must bear the address of the Candidate, and must be accompanied by a fee of Rs 10, and the following certificates. Certificates may be submitted in original, or in copies, attested by an Officer of the Engineer or Accounts Branch, but will be returned—

- (1) Certificate of good character signed by Candidate's immediate official superior, by his instructor under whom he has been educated, or by other superior under whom he may have been brought up or employed, or to whom he may be well known. (This certificate must have special reference to the two years immediately preceding application)
- (2) Certificate of age—baptismal or of birth—(not required if the Candidate is already in Government employ)

The application is in the Candidate's hand-writing.

Note—A Candidate already in Government service should, in no manner, submit his application through his immediate official superior to an Examiner qualified to hold the particular Examination and should state whether he wishes to be examined at the office of the Examiner of Accounts concerned or at the College

will rest with the Examiner of Accounts to whom the Candidate submits his application, to decide on a consideration of the certificates submitted, whether the Candidate should be allowed to appear for the Examination, or whether his application should be rejected. The Examiner of Accounts will then forward to the Principals the list of the accepted Candidates. The Principals will enter in a statement showing their names, addresses, and showing where each Candidate is to be examined, whether at the College or at the office of the Examiner of Accounts. This statement, together with the fees, shall be forwarded to the Principals not later than 15 days after the date fixed in

the preceding paragraph the submission of applications of Candidates.

1. These papers, for registered Candidates only, be sent to the College in the month conducting the examination in the following dates. The following are the subjects of examination, and the number of marks in each:—

	Full Marks	Minimum passing marks
Writing, (neatness, clearness and rapidity), ..	100	50
Dictation, (spelling, punctuation, &c.), ..	100	50
Arithmetic, (the whole),	240	120
Mensuration, (the whole),	80	40
Book-keeping, (mercantile),	100	50
Total, ..	520	260

10. The text-books are—

for Book-keeping—

- (1), "Book-keeping" by Bell and Hamilton;
- (2), "Book-keeping by double and single entry," by J. Inglis (Chartered Educational Course),

and for Mensuration—

- (1), Todhunter's Mensuration for Beginners

11. Examination papers that are issued for examination shall be returned.

12. The examination is complete in itself. A Candidate who has failed in an examination, and presents himself for examination on a subsequent occasion, must undergo the examination, and pay a fresh fee and certificate.

The Civil Engineering College is solely an examining body in reference to admission to the 4th Grade of Accountants, Public Works Department.

Candidates should apply, not to the Principal of the College nor to the Accountant General, but direct to the Examiner of Public Works Accounts in the Province or Railway under which they are to be employed.

It must be distinctly understood that the passing of the examination does not give any claim to appointment, and that no making appointments preference will be given to qualified persons who are already employed in the Department.

directed **FOR SPECIAL EXAMINATIONS—APPOINTMENT AS**

11. In the Bombay Presidency this examination is held at the College of Science, Poona, under rules published by the Government of Bombay.

17. In the Madras Presidency this examination is held by the Principal, Civil Engineering College, Madras.

COPIES OF THE RULES ARE GIVEN FOR EXAMINATION.

Copies of the rules relating to Examination ■■■■ into the ■■■■ Departments of the College, ■■■■ well as for "Outsider" Candidates ■■■■ ■■■■ ■■■■ and ■■■■ Establishments of ■■■■ D. P. Works, are obtainable, ■■■■ application, ■■■■ the College.

The Examination Papers for all ■■■■ of "Outsiders" are either ■■■■ from, or are similar to, the papers ■■■■ ■■■■ Entrance, Monthly, and Final Examinations to the College Students; so that ■■■■ papers published in ■■■■ Calendar are samples also of the "Outsiders" Examination.

SUBSIDIARY DEPARTMENTS OF THE COLLEGE

LIBRARY.

The College Library consists of 17,140 volumes, arranged as under :—

Class A. Mathematics,	411	Class K. Arts,	360
" B. Physics,	508	" L. Arts and Manufactures, ..	801
" C. Phenomenal,	1,720	" P. Literature,	1,115
" D. Moral, Mental, and Social Science,	687	" Q. Treaties and Descriptive Works,	1,515
" E. History,	1,510	" R. Indian Govt. Records, ..	1,115
" F. Mixed Professional,	387	" Z. General Miscellaneous, ..	3,215
" G. Engineering,	1,494		

It is the duty of all Government Officers, and out-station residents, to send books in application, which are retained for a time.

There is a printed Catalogue, and a Supplement is issued every year, which may be obtained on application to Curator, Book Depôt.

The last Supplement is corrected up to 10th February, 1897.

PRESS.

The College Press, Printing, Lithography, Photo-Zincography, and Binding of every description, primarily for the College publications, but also for the Public.

The Book Depôt receives and issues the publications of the College Press; of the printed Catalogues can be obtained free on application.

PHOTOGRAPHIC DEPARTMENT.

Over 500 views of the Himalayas, Buildings of interest all over India, works on the Upper and Lower Ganges Canals, &c., can be obtained on application to INSTRUCTOR IN PHOTOGRAPHY.

YEARLY LIST OF STUDENTS.

No.	Name.	Rank and Corps, and where obtained.	Remarks.
UPPER SUBORDINATE CLASS.			
1	Hawthorne, T. D.	..(Gr. 2nd Cy 4th Bt. Arty.	
2	Roberts, J.	..(Gr. 2nd Tr 2nd Br H.Arty.	
LOWER SUBORDINATE CLASS.			
1	Har Narayan, "	..(Delhi College	
2	Kashaya Lal,	..(Delhi College	

1848.

UPPER SUBORDINATE CLASS			
1	Davidson, J.	..Serge, 1st Cy 3rd Bt. Arty	
	Wellington, D. O.	..Gr. 1st Cy 3rd Bt. Arty	
	Ogle, M.	..Serge., 1st Cy 3rd Bt. Arty	
	Virgin, J. R.	..Corpl., 2nd Cy 2nd Bt. Arty	
	Benton, F.	..Gr. 3rd Cy 2nd Bt. Arty.	
	O'Donnell, G.	..Private, 1st E B F.	
	Hembrough, F.	..	
LOWER SUBORDINATE CLASS.			
1	Faisal Hassan,	..(Delhi College.	
2	Wajid-din,	..Manglasar	
3	Fayaz Haj,	..(Delhi College.	
4	Kamr-ud-din,	..(Delhi College.	
5	Nahmat Ullah,	..(Delhi College.	
6	Zaffer-ud-din,	..Roorkes.	
7	Jamayat Ali,	..Roorkes.	
8	Nisar Hussain,	..Roorkes.	
9	Feroz Sahb,	..Manglasar	

1850.

ROORKES CLASS.			
1	Patel, J. T.	..	

1850.

	Name.	Rank and Corps, and where educated.	Remarks.
UPPER SUBORDINATE CLASS.			
1	Fitzpatrick, P.	.. Gr., 2nd Cy 6th Bt. Arty	
2	O'Donoghue, E. E.	.. Gr., 2nd Cy 6th Bt. Arty	
3	Dillon, L.	.. Gr., 1st Cy 6th Bt. Arty	
4	Nolan, G.	.. Gr., 4th Cy 4th Bt. Arty	
5	Rae, J. F.	.. Corp., 4th Cy 2nd Bt. Arty	
6	Wallstead, J.	.. Corp., 1st Cy 6th Bt. Arty	
7	Swan, O.	.. Corp., 2nd Cy 1st Bt. Arty	
8	Corrigan, S. S.	.. Bugr., 2nd Cy 1st Bt. Arty	
9	Packer, W.	.. Sergt., 4th Cy 2nd Bt. Arty	
LOWER SUBORDINATE CLASS.			
1	Mank Ullah.	.. Delhi College.	
2	Mankaya Lal.	.. Delhi College.	
3	Jai Dayal.	.. Delhi College.	
4	Mahbub Ali.	.. Delhi College.	
5	Mala Bekhal.	.. Mangalore.	
6	Lettullah Khan.	.. Banarsee.	
7	Dabbar A. H.	.. Delhi College.	
8	Mahab Ali.	.. Banarsee School.	
9	Abdur Rahman (S).	.. Delhi College.	
10	Kedrat Ullah.	.. Meerut.	

1851.

ENGINEER CLASS.

1	Scott, G. F.	..	
2	Anderson, C.	..	
3	Cumma, F.	..	
4	Amer Khan.	.. Delhi College.	
5	Boulton, G. F.	..	
UPPER SUBORDINATE CLASS.			
1	Mitchell, H. E.	.. Corp., 1st Cy 2nd Bt. Arty	
2	Dundy, D.	.. Sergt., 2nd Cy 2nd Bt. Arty	
3	Lennon, J. F.	.. Gunr., 1st Cy 3rd Bt. Arty.	
4	James, T. F.	.. Corp., 2d Tr 3d Bt. H. Arty	
5	Wilson, T. H.	.. Gunr., 4th Cy 3rd Bt. Arty	
6	Baker, A.	.. Sergt., 2d Cy 3d Bt. Arty	
7	Lester, J., alias Brown.	.. Bomb., 2d Cy 3d Bt. Arty	
8	Goodland, F.	.. Corp., 2d Cy 3 & Miners.	
9	Reynolds, H.	.. Bugr., 2nd Cy 1st Bt. Arty	
10	Beasley, W.	.. Bomb., 2d Cy 1st Bt. Arty	
11	Finn, J.	.. Sgt., 3rd Tr 3d Bt. H. Arty	
12	Whelan, J.	.. Bomb., 3d Cy 4th Bt. Arty	
13	McKeeney, B.	.. Gunr., 1st Cy 2nd Bt. Arty.	
14	Maitland, O.	.. Private, 2nd E. B. F.	
15	Sheehan, J.	.. Gunr., 2nd Cy 4th Bt. Arty	
16	Chalmers, J.	.. Corp., 2nd Cy, 3 & Miners.	

YEARLY LIST.

1851.

No.	Names.	Rank and Corps, and where educated	Remarks.
17	Vaughan, C.	.. Gunr, 2nd Cy 2nd Bt. Arty.	
18	McMillan, E.	.. Gunr, 4th Cy 1st Bt. Arty.	
19	Murphy, J.	.. Gunr, 1st Cy. 4th Bt. Arty.	
20	Platts, F.	..	
LOWER SUBORDINATE CLASS			
1	Bahib Sahay,	.. Bareilly School	
2	Kedarnath,	.. Delhi College	
3	Mohan Lal,	.. Delhi College	
4	Mansh Ullah,	.. Delhi College	
5	Wathu Singh,	.. Boorkee	
6	Nasir Hussain,	.. Mangianr	
7	Muhammad Ismail,	.. Delhi College	
8	Fazur Hussain (S),	.. Delhi College	
9	Ilahi Baksh,	.. Deoband	
10	Karim Ullah Khan,	.. Delhi College.	
11	Fazal Hussain (S),	.. Mangianr	
12	Rasim Ali,	.. Delhi College.	

1852.

ENGINEER CLASS.

1	Hogan, W.	..
2	Hari Charn,	.. Agra College
3	Ranbaya Lal,	.. Agra College

SUBORDINATE CLASS.

1	McCalloch, W.	.. Private, 1st E B F
2	Green, G.	.. Corpl, 4th Cy 1st Bt Arty
3	Gilchrist, J.	.. Corpl, Sappers and Miners.
4	Kirchoff, C. D.	.. Private, 2nd E B F
5	Stolle, C.	.. Ser, 1st Tr 2d Br H Arty
6	Duncan, M.	.. Gr, 2d Tr 1st Br H Arty.
7	Stewart, J.	.. Private, 1st E. B. F
8	Mitchell, W.	.. Gunr, 1st Cy 6th Bt. Arty
9	Scott, W.	.. Corporal, 2nd E B F
10	Robson, E.	.. Corporal, 2nd E. B. F.
11	Thackwell, B.	.. Private, 2nd E. B. F
12	Follerton, J.	.. Corpl, Sappers and Miners.
13	McIntyre, B.	.. Gunr, 1st Cy 6th Bt. Arty
14	Rivett, W.	.. Private, 2nd E. B. F
15	Rice, S.	.. Sergt, 2nd Cy 5th Bt. Arty
16	Carmichael, A. B.	.. Corpl, Sappers and Miners
17	Walker, C.	.. Private, 2nd E. B. F
18	McKay, M.	.. Corpl, 2nd Cy 1st Bt. Arty
19	W.	.. Gunr, 2nd Cy 6th Bt. Arty
20	W.	.. Regt-Major, 8th Bt. Arty
21	Johnson, W.	.. Bomb, 1st Cy 6th Bt. Arty
22	Jean, B.	.. Corpl, 2nd Cy. 2nd Bt. Arty
23	McCluskey, J.	.. Bomb, 2nd Cy 6th Bt. Arty

1852.

No.	Name.	Rank and Corps, and place assigned.	
LOWER SUBORDINATE CLASS.			
1	Abdul Ramak,	.. Delhi College.	
2	Gulam Hyder,	.. Delhi College.	
3	Muhamm. Lal,	.. Meerut.	
4	Abdur Rahim,	.. Delhi	
5	Ahsan Ullah,	.. Meerut.	
6	Kashaya Lal,	.. Najibabad	
7	Fauzi Hassan,	.. Delhi College	
8	Fateela Khan,	.. Agra College.	
9	Fad Ali,	.. Delhi College.	
10	Ali-ud-din,	.. Khatem	
11	Shahk Ahmad,	.. Delhi College	
12	Margi Lal,	.. Meerut.	

1853.

ENGINEER CLASS.

1	Swetnam, R.	..	
2	Fathali, H. J.	..	.. Prize for Mathematics.
3	Milman Mura,	.. Free Church Institution	

SUBORDINATE CLASS

1	McNeil, J.	.. Private, 2nd R. B. F.	
2	FitzGerry, W.	.. Bomb., 2nd Cy 6th Bt. Arty.	
3	Graham, J.	.. Corpl., Sappers and Miners.	
4	Moh, J.	.. Gunr., 5th Cy 6th Bt. Arty.	
5	Young, J.	.. Gunr., 2d Tr 2d Bt. Arty.	
6	Clarke, J.	.. Corpl., 4th Cy 1st Bt. Arty.	.. Prize for Drawing
7	McDonnell, T.	.. Corpl., 2d Tr 2d Bt. Arty.	
8	J.	.. Corpl., Sappers and Miners.	.. Prize for Drawing
9	Atchison, J.	.. Cpl., 2d Tr 2d Bt. Arty.	.. Prizes for Mathematics and Urd.
10	Duggan, M.	.. Corpl., 1st Cy. 1st Bt. Arty.	
11	Duggan, M.	.. Sergt., 1st Cy 1st Bt. Arty.	.. Prizes for Civil Engineering
12	Oor, G. F. J.	.. Bomb., 2nd Cy 6th Bt. Arty.	
13	Brian, J. alias P.	.. Gunr., 1st Cy. 1st Bt. Arty.	
14	Brady, F.	.. Corpl., 1st Cy 1st Bt. Arty.	
15	Charlton, J.	.. Sergt., 1st Cy 1st Bt. Arty.	
16	Montgomery, S.	.. Corpl., Sappers and Miners.	
17	W.	.. Private, 1st R. B. F.	
18	J.	..	
19	Bradshaw, T.	..	
20	Eraser, T.	..	
21	Sharma, W. Prize for Drawing
22	C. Prize for ..
23	D.	..	
24	K.	..	

LOWER SUBORDINATE CLASS.

1	Kadim Ali,	.. Delhi College.	
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No.	Name.	Rank and Corps, and where obtained	Prizes
2	Genoshi Lal	.. Sakhrampur.	
3	Genoshi Lal	.. Barnali College.	
4	Genoshi Lal	.. Deoband	
5	Akhar Beg.	.. Delhi College.	.. Prize for Civil Engineering and Surveying
6	Mashtak Ahmed.	.. Deoband.	
7	Ahmad Mir.	.. Moorkee.	
8	Dalla Ram.	.. Delhi.	

1854.

1	Sean, L. B. Prize for Surveying
2	Baillie, G.	.. Lieut., Artillery.	
3	Earle, R. L.	.. Lieut., Artillery	
4	Swensonham, G.	..	.. Prize for General Month
5	Scott, H. R.	..	
6	Gardner, H.	..	.. Prize for Civil Engineering.
7	Gardner, H.	..	.. Prize for Surveying
8	Whish, C. B.	.. Lieut., 14th Light Dragoons	

UPPER SUBORDINATE CLASS.

1	McGillivray, W.	.. Sgt., 3rd Tr 1st Br II. Arty	
2	Drummond, G.	.. Corp., 1st Cy. 6th Bt. Arty	Prizes for General Month Civil Engineering
3	Murray, F.	.. Corp., 4th Cy 3rd Bt. Arty	
4	Easy, F.	.. Staff Sgt., 3d Cy. 3d Bt. Arty	Prize for Surveying
5	McKeown, J.	.. Ser., 3rd Tr 1st Br II. Arty	
6	Brown, J.	.. Gunner, 1st Cy 3d Bt. Arty	
7	Cooper, J. W.	.. Gunner, 1st Cy 3d Bt. Arty	
8	McKechnie, J.	.. Gunner, 1st Cy 3d Bt. Arty.	
9	Forrest, R.	.. Corp., 4th Cy 3rd Bt. Arty	
10	Taylor, W.	.. Corp., 1st Cy 6th Bt. Arty	
11	Lynch, M.	.. Gunr., 3d Cy 5th Bt. Arty	
12	Hall, G. F.	.. Private 1st E B F	
13	Cahill, D.	.. Gunr., 3rd Cy 2nd Bt. Arty	
14	Leach, W.	.. Gunr., 3rd Cy 3rd Bt. Arty	
15	Austin, J.	.. Gunr., 4th Cy 3rd Bt. Arty	
16	O'Donnell, H.	.. Gunr., 4th Cy 3rd Bt. Arty.	

LOWER SUBORDINATE CLASS

1	Sheikh Ahmed.	.. Delhi College	
2	Momab Bakhsh.	.. Moorkee.	
3	Mallik Chand.	.. Barnali College.	
4	Shakh Becha.	.. Moorkee.	.. Prizes for Civil Engineering Drawing
5	Momab Ray.	.. Moorkee.	.. Prize for General Month
6	Mirza Jan.	.. Delhi College.	
7	Wlas Hustin.	.. Moorkee	

TABLES.

1854.

No.	Names.	Rank and Charge, and where obtained.	Remarks.
8	Yusuf Beg.	.. Roorkhee.	
9	Kandam Lal.	.. Roorkhee	
10	Fakih Khān.	.. Delhi.	.. Prize for General Merit
11	Rana Gopal.	.. Agra School.	.. [redacted] Merit, Civil Engi- neering and Surveying
12	Mahammad Husein.	.. Roorkhee.	
13	Jamāl-ud-dīn.	.. Bareilly College.	.. Prize for General Merit.
14	Gopal Prasad.	.. Bareilly College	
15	Jawāhir Lal.	.. Agra College.	.. Prizes for [redacted] Civil [redacted]
16	Fakhr-ud-dīn.	.. Bareilly College	
17	Abbas Ali.	.. Delhi College	
18	Sankar Lal.	.. Deoband.	
19	Ibrahim Khān.	.. Roorkhee.	
20	Sādik Ali.	.. Bareilly College.	
21	Farwaz Ali.	.. Roorkhee	
22	Mohib Ali.	.. Roorkhee.	
23	Muham-ud-dīn.	.. Jagadhr.	
24	Moti Lal.	.. Agra School.	
25	Khāib Karkhan.	.. Manglaur.	
26	Jamun Das.	.. Sahibganj.	.. Prize for Drawing
27	Mān Ratheh.	.. Deoband	
28	Mohabul Rahmān.	.. Roorkhee.	
29	Lachma Chānd.	.. Roorkhee.	
30	Jai Lal.	.. Roorkhee.	
31	Harcham Das.	.. Agra School.	

1855.

ROORKHEE CLASS.

1	Bolton, C.	..	.. Prize for General Merit
2	Forrest, E. E.	..	.. Prize for General Merit.
3	Tulloch, A.	.. Lieut., 50th N Infantry	
4	Marshall, W.	.. Lieut., 46th N. Infantry	
5	Rām Prasad	..	
6	Modhansudan Chatter- jee, Rajyit.	..	.. Prizes for [redacted] Merit, Mathemat- ics and Surveying.

UPPER SUBORDINATE CLASS.

1	Roberts, W.	.. Gr., 4th Cy- and Bt. Arty.	.. [redacted] General Merit, [redacted] [redacted] and Drawing.
2	Murphy, T.	.. Cpl., 2nd Cy 6th Bt. Arty	
3	Gardner, T.	.. Gr., 2nd Cy 6th Br H Arty	
4	Tuck, J. J.	.. Gr., 2nd Tr 2nd Br H Arty	
5	Sharpe, J. H.	.. Gr., 2nd Cy. 6th Bt. Arty.	.. Prize for Surveying.
6	Grace, J. E.	.. Sgt., 2nd Tr 1st Br H Arty	
7	Wilson, W.	.. Sergt., 2nd Cy 6th Bt. Arty	
8	Donovan, J.	.. Gunr., 1st Cy 2nd Bt. Arty	
9	Lecky, M.	.. Gunr., 2nd Cy. 6th Bt. Arty	
10	McLeod, J.	.. Gunr., 2nd Cy 6th Bt. Arty	
11	Hansley, M.	.. Gunr., 2nd Cy. 6th Bt. Arty	

1855.

No.	Name.	Rank and Corps, and where assigned.	Remarks.
13	Murray, J.	Genl, 2nd Cy 2nd Bt. Arty	
13	Meehan, W.	Private, 1st E. B. F.	
14	McMahan, J.	Private, 1st E. B. F.	
15	Sheehan, W.	Gr, 1st Cy 6th Bt Arty	
16	Mahoney, J.	Gr, 3rd Tr 1st Br H Arty	
17	Taylor, W.	Gr, 4th Cy 1st Bt. Arty	
LOWER SUBORDINATE CLASS			
1	Jawahir Lal,	.. Agra School,	.. Prize for General Merit.
2	Sabab Ray,	.. Bareilly College.	
3	Kath-ad-din,	.. Bareilly College.	
4	Shamshat Din,	.. Roorkhee,	.. Prize for General Merit.
5	Nadir Husain,	.. Roorkhee	
6	Muhammed Ismail (1)	.. Saharanpur	
7	Muhammed Ismail (2)	.. Saharanpur,	
8	Sant Lal,	.. Naker,	.. Prize for General Merit.
9	Habibullah,	.. Saharanpur	
10	Ajodhya Prasad,	.. Mangalore	
11	Sankar Lal (1),	.. Deoband,	
12	Sankar Lal (2),	.. Roorkhee	
13	Bahari Lal,	.. Deoband	
14	Balm Bakhsh,	.. Khatpur	
15	Mam Prasad,	.. Deoband.	
16	Shagwin Din,	.. Mangalore	
17	Isht Lal,	.. Mangalore	
18	Dul Sukh Rame,	.. Agra School,	
19	Karamat Ali,	.. Roorkhee	
20	Roshier Singh,	.. Roorkhee	

1856.

REGIMENT CLASS.			
1	Wish, H. R.	.. Range, 94th B Infantry	
2	Macrae, W. B.	.. ..	.. Prize for Drawing
3	Dickens, T. C.	.. Lieut, Artillery,	.. Prize for General Merit
4	Wright, T.	.. Lieut., 94th B Infantry,	
UPPER SUBORDINATE CLASS			
1	Lawson, J.	.. Corpl, Sappers and Miners	Prize for Mathematics.
2	Davis, G.	.. Bomb, 2nd T 3rd Br H Arty	Prize for General Merit.
3	Gatabono, W.	.. Gr, 3rd Tr 2nd Br H Arty	Prize for Surveying.
4	Hurst, J.	.. Corpl, Sappers and Miners	Prize for Drawing
5	McPhoe, A.	.. Sergt, Sappers and Miners	
6	Macnamara, M.	.. Gr, 3rd Cy 4th Bt Arty	
7	Rams, G.	.. Corpl, Sappers and Miners	
8	Martin, J.	.. Sgt, 3rd Tr 2nd Br H Arty	
9	Brown, J.	.. Corpl, Sappers and Miners	
10	Stewart, J. A.	.. Gr., 3rd Cy 4th Bt Arty,	Prize for Drawing
11	Wilson, J.	.. Corpl, Sappers and Miners	
12	Barry, J.	.. Br, 3rd Tr, 1st Br. H Arty	

1856.

No.	Names.	Rank and Corps, and where obtained.	Remarks.
13	Barton, R. G.,	Private, 1st E. B. F.	
14	McPherson, J.,	Private, 2nd E. B. F.	
15	Coomings, W.,	Musician, 9th Lt. Cavalry	
16	Parcell, T.,	Gr. 2nd Tr 1st Bn. H. Art.	
17	Martin, A. O.,	Gr. 1st Cy 2nd Bn. H. Art.	
18	Duffy, R. J.,	Tr. 2nd Tr 2nd Bn. H. Art.	
19	Rowe, W.,	Gr. 2nd Tr 1st Bn. H. Art.	
20	McCarthy, T. F.,	Capt. 3rd Cy 2nd Bn. H. Art.	
21	Macnamara, P.,	Gr. 4th Cy 2nd Bn. H. Art.	
22	Brotherton, J.,	Cpl. 3rd Cy 2nd Bn. H. Art.	
23	Dennis, F. J.,	Cpl. 3rd Tr 1st Bn. H. Art.	
24	Corcoran, C.,	Cpl. 3rd Tr 1st Bn. H. Art.	

LOWER SUBORDINATE CLASS

1	Muhammed Anwar,	Donboud	
2	Gobind Prasad,	Aligarh,	Prize for Drawing
3	Bani Prasad,	Baharanpur,	Prize for General Merit
4	Amur Hamad,	Roorkhee,	Prize for General Merit
5	Hakim Prasad,	Agra College,	Prize for General Merit
6	Isari Prasad,	Bareilly College,	
7	Dhruva Lal,	Aligarh,	
8	Abdul Gaffur,	Baharanpur	
9	Sami Lal,	Roorkhee	
10	Muhammed Ali (1),	Roorkhee	
11	Imdad Ali,	Roorkhee	
12	Sures Lal (2),	Roorkhee	
13	Abdur Rahman,	Aligarh,	
14	Fakir Chand,	Roorkhee	
15	Karim Baksh,	Roorkhee	
16	Parmanand,	Roorkhee	
17	Hatim Ali,	Roorkhee	
18	Muhammed Hussain,	Delhi College	
19	Nahmat Ali,	Delhi College	
20	Khwaja Jan,	Bareilly College	
21	Anand Das,	Wardha School	
22	Hardeo Das,	Delhi College	
23	Bai Ram,	Roorkhee	

1857

ENGINEERS CLASS

1	Malville, A. D.,	Engine, 67th N. Infantry
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LOWER SUBORDINATE CLASS.

1	Prati Lal,	Bareilly College
2	Shadi Lal,	Bareilly College
3	Aagar Ali,	Bareilly College
4	Gobind Ray,	Roorkhee

1888.

No.	Name.	Rank and Corps, and where obtained.	Remarks.
REVENUE CLASS.			
1	Brockman, W. D., ..	..	.. Council of India Prize of Rs. 1,000.
2	Bender Lal, ..	.. Bareilly College.	..
UPPER SUBORDINATE CLASS.			
1	Kenna, J., ..	.. Staff Sergeant, 2nd E. R. F., ..	Prize for General Merit.
2	Glinke, G., ..	.. Pte, Sappers and Miners, ..	Prize for Mathematics.
3	Gilmore, J., ..	.. Private, 1st E. R. F., ..	Prize for General Merit.
4	McMillan, W., ..	.. Corporal, Sappers and Miners.	..
5	Driver, G., ..	.. Corporal, 2nd Cy. 5th Bt. Arty.	..
6	Matthews, F., ..	.. Sergeant, Sappers and Miners.	..
7	Joyce, J., ..	.. Corporal, Sappers and Miners.	..
8	Potter, H., ..	.. Corporal, Sappers and Miners.	..
9	Smith, T., ..	.. Tpt, 1st Tr. 2nd Br. H. Arty.	..
10	Jones, W., ..	.. Private, Sappers and Miners.	..
11	Pendergast, J., ..	.. Corporal, Sappers and Miners.	..
12	Common, G., ..	.. Private, 2nd E. R. F.	..
13	Guthrie, A. C., ..	.. Corporal, Sappers and Miners.	Prize for Drawing.
14	Porter, J., ..	.. Gunr, 4th Cy. 3rd Bt. Arty.	..
15	McPherson, H. M., ..	.. Private, 2nd E. R. F., ..	Prize for Drawing.
16	Kavanaugh, J. J., ..	.. Corporal, Sappers and Miners.	..
17	Tydale, J., ..	.. Sergeant, Sappers and Miners.	..
18	Ryan, J., ..	.. Gr., 3rd Tr. 1st Br. H. Arty.	..
19	Tracy, M., ..	.. Gr., 3rd Cy. 4th Bt. Arty.	..
20	Adams, J., ..	.. Sergeant, Sappers and Miners.	..
21	Johnston, M., ..	.. Corporal, Sappers and Miners.	..
22	Ollsted, E., ..	.. Gr., 1st Cy. 2nd Bt. Arty.	..
23	McLoney, M., ..	.. Sergeant, 2nd E. R. F.	..
24	Poley, J., ..	.. Br., 3rd Cy. 2nd Bt. Arty.	..
25	Chill, W. R., ..	..	..
26	Smith, M. T., ..	..	..
LOWER SUBORDINATE CLASS.			
1	Rastri Bag, ..	.. Delhi College,	.. Prize for General Merit.
2	Khawa Abdur Rahman, ..	.. Delhi College,	.. Prize for Surveying and Drawing.
3	Ram Gopal, ..	.. Saharspur.	..
4	Nabr Ahmed, ..	.. Bareilly College.	..
5	Gobind Ray, ..	.. Saharspur.	..
6	Nawalal Ali, ..	.. Bareilly College.	..
7	Din Dayal (1), ..	.. Rohtak.	..
8	Narayan Das, ..	.. Bareilly College,	.. Prize for Mathematics.
9	Kanhaiya Lal, ..	.. Bareilly College.	..
10	Abdur Razak, ..	.. Deoband.	..
11	Jitha Mal, ..	.. Jawalapur.	..
12	Bai Chand, ..	.. Saharspur.	..
13	Leckpat Ray, ..	.. Bareilly College.	..
14	Hira Lal (1), ..	.. Saharspur.	..
15	Baktiwar Lal, ..	.. Saharspur.	..
16	Shoo Dayal Singh, ..	.. Delhi College.	..
17	Alta Khan, ..	.. Rohtak.	..

1858.

No.	Name	Rank and Corps, and where obtained	Remarks
16	Aziz Ahmad,	.. Roorkes.	
17	Jay Dayal Singh,	.. Baharaspur.	
	Jasna Das,	.. Baharaspur.	
	Hiri Lal (S),	.. Baharaspur.	
	Khoda Baksh,	.. Baharaspur.	
	Din Dayal (S),	.. Roorkes.	
	Faiz Azim,	.. Baharaspur.	
	Sirharas Ahmad,	.. Delhi College.	
	Banwar Lal,	.. Deoband.	
	Hira Lal (S),	.. Baharaspur.	
	Mansur Ahmad,	.. Deoband.	
	Kavir Ahmad,	.. Deoband.	
	Mughal Beg,	.. Delhi College.	
	Salig Ram,	.. Bareilly College.	
	Ganpat Rai,	.. Deoband.	
	Behari Lal,	.. Rampur.	
	Bahar Singh,	.. Roorkes.	
	Abdur Rahman,	.. Roorkes.	
	Santha,	.. Roorkes.	
	Mahdi Ali,	.. Bareilly College.	

1859.

ENGINEER CLASS.

1	Bedesh, W. B.,	..	Higher Standard.
2	Armstrong, W. F.,	..	
3	Narayan Das,	.. Bareilly College,	Higher Standard. Thomson Prize of Rs 150.
	Wood, E. S.,	.. Lieut, 89th Highlanders.	
	Speake, J. H.,	..	The Candley Gold Medal.
	White, H. F.,	..	
	Yule, G. W. V.,	.. Woolwich	
	Garsen, E. C.,	.. Lieut, 39th N Infantry.	
	Angulo, R. F.,	.. Lieut, 41st N Infantry	
10	Ghadi Ram,	.. Bareilly College	
11	Shoa Firoz,	.. Bareilly College.	

UPPER SUBORDINATE CLASS

1	Lennox, W. H.,	.. Corp., Sappers and Miners,	Prize for General Merit, and Surveying.
2	Casparian, P. C.,	.. Corp., Sappers and Miners,	Prize for Surveying and Drawing.
3	Hall, J.,	.. Sergt., Sappers and Miners,	Prize for General Merit and Civil Engineering.
	Peterson, G.,	.. Corp., Sappers and Miners,	Prize for General and Engineering.
	Ready, P.,	.. Gunr, Cy 5th Bt. Arty.	
	Egan, J.,	.. Pte, Sappers and Miners	
	Gair, D.,	.. School Sergeant, Artillery Division.	
	Hurst, J.,	.. Sgt., 2nd Cy 4th Bt. Arty	

No.	Name	Rank and Corps, and where educated	
9	Herdman, W. J.	Sergt., 1st B. B. F.	
10	Armstrong, E.	Private, 22nd Regiment.	
11	Tarrant, E.	Sergt., 80th Regiment.	
12	Beck, H.	Sergt., 4th B. F. Regiment.	
13	Anderson, J.	Honbl. Sergt., 3d B. H. Army	
14	Agadshaw, J.		
LOWER SUBORDINATE CLASS			
1	Muhammad Mohun.	Ladhuana.	Prize in Drawing
2	Maitra Das (1).	Saharanpur.	Prize in Drawing
3	Chokhai Lal.	Bareilly College	
4	Maitra Das (2).	Amboina.	
5	Faai Anum.	Saharanpur.	
6	Ganga Ram.	Saharanpur	
7	Muhammad Humun.	Meerut.	Prize in Surveying
8	Kishan Lal.	Amboina	
9	Rajan Lal.	Sakaulambud	
10	Nadar Singh.	Amboina.	
11	Ata Husain.	Roorkhee	
12	Gorden Lal.	Meerut.	
13	Zakur Hussain.	Mandawar School	
14	Mahsar Ullah.	Roorkhee	
15	Harpat Rai.	Dooband	
16	Shagwan Das.	Dooband	
17	Yusuf Ali.	Roorkhee	
18	Hira Lal.	Meerut.	
19	Asus Beg.	Bareilly College	
20	Debi Prasad.	Bareilly College	
21	Janki Das.	Gangoh	
22	Abdur Rahiman.	Roorkhee	
23	Jamun Das.	Saharanpur	
24	Guliam Nabi.	Dooband	
25	Kundan Lal.	Dooband.	
26	Debi Das.	Bareilly College	

1860.

No.	Name	Rank and Corps, and where educated.	Marks obtained
KNIGHTS CLASS.			
(Full Marks, 2000)			
1	Maitland, G. T.		1582/54
2	Hennemay, W. C.		1458/51
3	Panama, E. J.	Lieut., 28th E. Infantry.	1405/48
4	Khetter Nath Chatterjee.		
5	1st.	Agri. College.	1262/44
6	Parlow, F. G. B.	Lieut., 54th Regiment.	1214/43
7	Muthra Das.		1063/36
8	Ellen, W. E.	Capt., 80th Regiment.	0798/1

1880.

No.	Name.	Rank and Corps, and where obtained.	Age	Height	Remarks.
UPPER SUBORDINATE CLASS.					
(Full Marks, 1880).					
1	Martin, W.	Corpl, 2nd Regt. ...	587	54	Prize for General Math.
2	Graham, D.	Corpl, Sappers and Miners.	544	55	Prize for Mathematics.
3	Burke, P.	Corpl, Sappers and Miners.	535	52	Prize for Surveying.
4	McGrath, T.	Sergant, 2nd Regiment...	532	51	
5	Fairman, J.	L.-Corpl, 42nd Highlanders.	799	50	
6	Chalmers, B.	Corpl, Sappers and Miners.	790	49	
7	Miller, J.	Corpl, Sappers and Miners.	784	48	
8	Jackson, R.	Sergt, Sappers and Miners.	769	47	
9	Balley, R. E.	Sergt, Sappers and Miners.	750	47	
10	Cansley, W.	Corpl, Sappers and Miners.	744	47	Prize for Drawing.
11	Malcom, J.	Sergt., 1st Cy 1st Bn. Arty.	735	45	
12	Kilham, J.	Corpl, Sappers and Miners.	714	45	
13	Hyde, W.	Corpl, Sappers and Miners.	684	45	
14	Smith, C.	Pvt, 2nd Bengal Fusiliers.	678	43	
15	McArthur, S.	Sergt, 42nd Highlanders...	665	42	
16	Sieks, P. G.	Pvt, 2nd Dragoon Guards.	652	42	
17	Cooper, G.	Corpl Sappers and Miners.	651	41	
18	Hamphreys, D.	Corporal, 7th Regiment...	649	41	
19	Harte, T.	Corpl, Sappers and Miners.	633	40	
20	Burling, R.	Corpl, Sappers and Miners.	615	39	
21	Riddock, C.	Corpl, Sappers and Miners.	609	38	
22	Moloney, R.	Sergt, Sappers and Miners.	589	38	
23	Robinson, G.	Corpl, Sappers and Miners.	579	38	
24	Fyfe, M.	Sergt, Ord. Cmt. Dept. .	545	34	
25	Fillingham, W.	Sergt, Sappers and Miners.	530	38	
26	Mab, M.	Sergt, Sappers and Miners.	522	43	
27	Fist, J.	Sergt, Sappers and Miners.	498	30	
28	Gough, W.	Sergt, Sappers and Miners.	496	37	
29	Boris, B.	Corpl, Sappers and Miners.	400	24	
30	Hynes, T.	Sergt, Sappers and Miners.	395	25	
LOWER SUBORDINATE CLASS.					
(Full Marks, 1880).					
1	Fatah Chand.	Amalakh.	793	50	Prize for General Math, Sur- veying and Drawing.
2	Mangut Ray.	Manghar.	758	54	Prize for General Math.
3	Rup Chand.	Farroper.	695	47	
4	Abul Ham.	Dalhi College.	637	45	
5	Manna Lal.	Sikandarabad.	619	45	
6	Ali Muhammad.	Bareilly College.	610	44	
7	Nand Khosra.	Doaband.	592	44	
8	Sahk Ali.	Dalhi College.	591	44	
9	Rayas Ali.	Mangalaur.	559	43	
10	Daulat Ram.	Sikandarabad.	537	42	
11	Nadha Ram.	Kol.	504	42	
12	Brimha Saray.	Sikandarabad.	529	42	
13	Muthra Das.	Doaband.	531	42	
14	Ali Hasan.	Baharungur.	549	41	

1890

No.	Name.	Rank and Corps, and where obtained.	1891	1892	Remarks.
17	Shola Nath (I),	.. Bareilly College,	..	543 45	
18	Monsaffar Hussain,	.. Delhi College,	..	534 45	
20	Nur Singh,	.. Deoband,	..	527 55	
27	Ram Saran,	.. Sikandarabad,	..	481 55	
29	Shangam Lal,	.. Umballa,	..	474 55	
30	Shagwan Das,	.. Deoband,	..	472 55	
31	Kanhaya Lal,	.. Roorkhee,	..	470 55	
32	Jhanda Singh,	.. Mangalore,	..	463 55	
34	Yusuf Ali,	.. Roorkhee,	..	463 54	
35	Fauz Ali,	.. Delhi College,	..	460 54	
36	Muhammed Ismail,	.. Mangalore,	..	451 55	
40	Ganda Singh,	.. Mangalore,	..	440 55	
41	Chota Lal,	.. Meerut,	..	435 55	

1891.

ANONYMOUS CLASS.

(Full Marks, 2075).

1	Wadhwa, W. H.,	.. Capt, 70th Highlanders,	1754 51	Higher Standard
2	Williams, F. J.,	..	1676 50	The Council of India Prize of Rs 1,000 Prize for Physical Science.
3	Gilks, G. R.,	.. Lieut, 30th Regiment.		
4	Dalston, C. R.,	.. Lieut, Artillery.		

UPPER SUBORDINATE CLASS.

(Full Marks, 1875).

1	Gill, W.,	.. Private, 42nd Highlanders,	1162 70	Higher Standard Prize for General Maritime Surveying.
2	Webster, J.,	.. Private, 30th Regiment,	893 53	Prize for Drawing.
3	Hayward, F.,	.. Corpl, Sappers and Miners,	867 51	Higher Standard Prize for Mathematics and Civil Engineering.
4	Halsell, J.,	.. Corpl, Sappers and Miners,	824 50	Higher Standard.
5	O'Malley, J.,	.. Sergt, Sappers and Miners,	810 50	
6	Lindsay, R. B.,	.. Corpl, Sappers and Miners,	805 52	
7	Adam, R.,	..	754 49	
8	Beemets, T.,	.. Corpl, Sappers and Miners,	749 48	
9	McCarty, D.,	.. Private, 30th Lt. Dragoons,	719 45	
10	Browning, F.,	.. Private, 7th Hussars,	719 45	
11	Williams, J.,	.. Sergt, 101st R. B. Fusiliers,	666 41	
12	Lindsay, C., alias Robertson, C. F.,	.. Corpl, Sappers and Miners,	644 41	
13	Croft, W.,	.. Corpl, Sappers and Miners,	641 41	
14	Tal Ray,	..	610 38	
15	Graville, H.,	.. Corpl, Sappers and Miners,	590 37	
16	Gorman, W.,	.. Private, 57th Regiment,	532 35	
17	Morrison, J.,	.. Private, 30th Lt. Dragoons,	494 31	
18	Robert Lal Chatterjee,	..	479 30	

YEARLY LIST.

1861.

No.	Name.	Rank and Corps, and where obtained.	Marks obtained.	Remarks.
				1861 Marks.
1		..Gurgaon,	751 51	Higher Standard. Prize
2	Shadi Lal,	..Sikanderabad,	739 49	General Merit. Higher Standard.
3	Shugan Chand,	..Manglaur,	707 48	
4	Dattat Ram,	..Najibabad,	686 48	
5	Lochan Prasad,	..Shrangan,	680 48	
6	Lochan Prasad,	..Moradabad,	678 48	
7	Ganesh Lal,	..Gangoh,	663 48	Prize for Engineering
8	Ali Nabi,	..Nagina,	651 44	
9	Kiron Mal,	..Manglaur,	651 43	
10	Intam Ali,	..Amroha,	604 41	
11	Shub Sakay,	..Ranik College,	604 41	
12	Punb-ud-din,	..Meerut,	589 40	Prize for Surveying
13	Bewak Ram,	..Manglaur,	583 39	
14	Ramji Das,	..Jeholabad,	583 38	
15	Mis Ahmad,	..Delhi,	549 37	
16	Ram-ud-din,	..Deoband,	522 36	
17	Kalyan Das,	..Gedabad,	512 34	
18	Bhola Nath,	..Sikanderabad,	508 34	
19	Har Sarup,	..Manglaur,	499 34	
20	Faur Hussain,	..Manglaur,	474 32	
21	Bart Lal,	..Manglaur,	468 32	
22	Bhawari Dutt,	..Gurgaon,	463 31	
23	Anta-ud-din,	..Delhi College,	462 31	
24	Har Prasad,	..Meerut,	440 30	
25	Nadir Hussain,	..Manglaur,	420 29	
26	Karm Ahmad,	..Delhi College,	422 28	
27	Hagwan Lal,	..Sikanderabad,	415 28	
28	Bart Mal,	..Rooskee,	424 23	

1862.

ENGINEER CLASS

(Full Marks, 2000)

1	William, W. H.,	..Lieut, Royal Artillery,	1628 58	Physical
2	Isaer Chander Sircar,	..	1143 39	
3	Kaliberer, F.,	..	1054 30	
4	Ushar Lal,	..	1045 28	
5	Connor, A. R. W.,	..	1018 25	
6	Armstrong, L. H. G.,	..	976 24	
7	Pope, J. H.,	..	970 23	
10	Ogle, M. J.,	..	757 20	
10	Ponock, L.,	..	757 20	

1862.

No.	Name.	Rank and Corps, and where attached.	Age	Grade	Remarks.
UPPER SUBORDINATE CLASS.					
(Full Marks, 1875)					
1	Calvert, J.	Corpl, Sappers and Miners.	116	54	Higher Standard. Prizes for General Merit and Mathematics.
2	Lewase, A.	Corpl, Sappers and Miners.	108	35	Higher Standard. Prizes for Drawing.
3	Mills, J.	Corpl, Sappers and Miners.	81	58	Higher Standard.
4	Hill, L. G.	Corpl, 35th Regiment.	81	58	Prizes for Engineering and Surveying.
5	Street, W.	Corpl, Sappers and Miners.	80	57	
6	Wray, H.	Gunner, Royal Artillery.	80	57	
7	Jennings, T.	Private, 7th Hussars.	80	54	Higher Standard.
8	Forryth, A.	Sgt & Qr Room Clerk, R. A.	79	58	
9	Bartram, J.	Corpl, Sappers and Miners.	78	49	
10	Wilson, J.	Private, 36th Regiment.	74	47	
11	James, B.	Corpl, Sappers and Miners.	73	47	
12	Paul, J.	Private, 75th Highlanders.	64	41	
13	Walsingham, R.	Corpl, Sappers and Miners.	64	41	
14	Hanney, H.	Private, 7th Hussars.	62	40	
15	Goldbeck, J.	Private, 54th Regiment.	61	39	
16	Burns, J.	Sergeant, 7th Hussars.	60	38	
17	Walsh, S. G.	Gunner, Royal Horse Art.	58	37	
18	Robinson, W.	Private, 20th Regiment.	58	36	
19	Tin Hay, J.	Sergeant, 51st Regiment.	54	33	
20	McCawley, J.	Private, 20th Regiment.	54	33	
21	Ryan, P.	Sergeant, 51st Regiment.	53	34	
22	Bedmond, J.	Corpl, Sappers and Miners.	50	32	
23	Brown, B.	71st Regiment.	50	32	
24	Goss, A.	Sergeant, 52nd Regiment.	49	32	
25	Dwyer, J.	Private, 7th Hussars.	49	31	
26	James Prasad,	Private, 7th Hussars.	48	31	
27	Kidmanth Tumbler,	Private, 7th Hussars.	48	31	
28	Ram Prasad,	Private, 7th Hussars.	48	31	
29	Mohan Lal,	Private, 7th Hussars.	48	31	
30	Ravi Das Dey,	Private, 7th Hussars.	48	31	
LOWER SUBORDINATE CLASS					
(Full Marks, 1875)					
1	Shagwan Sahay,	Belandshahr,	81	58	Higher Standard. Prizes for Drawing.
2	Mohammed Zakaria,	Bahadurpur,	79	43	Higher Standard. Prizes for Surveying.
3	Khatun AB,	Bahadurpur,	78	51	Prizes for Mathematics.
4	Ali-ud-din,	Bahadurpur,	73	48	
5	Ahmad Hasan,	Bahadurpur,	70	47	Prizes for Civil Engineering.
6	Kundan Lal,	Deoband,	68	46	
7	Nisar Ali,	Delhi,	68	46	
8	Murli Dhar,	Gangoh,	60	46	
9	Ahmad Hasan,	Bahadurpur,	59	46	

1882.

No.	Name.	Rank and Corps, and where educated.	Marks obtained.	Prize.
10	Ali Mahomed,	.. Mirzabad,	..	535.40
11	Bhagwat Das,	.. Mangalore,	..	534.00
12	Isdyat Ullah,	.. Nagina,	..	544.55
13	Behob Singh,	.. Nagina,	..	544.55
14	Mohammed Hagan,	.. Saharanpur,	..	545.54
15	Manik Chaud,	.. Gangoh,	..	526.25
16	Shih Lal,	.. Deoband,	..	519.25
17	Chaschal Ray,	.. Saharanpur,	..	449.08

1883.

(Full Marks, 1000).

1	Leppell, C. B.,	.. Church Missionary School, Ichang,	1844.67	Higher Standard. Council of India Prize of Rs. 1,000, Cavendish Gold Medal Col Medley's Prize for Civil Engineering
	Samballa, E. W.,	.. Lieut. Genl. Inst. Infantry,	1401.54	Prize for Geology.
	Conroy, W. F.,	.. St. George's, Mangalore,	1372.45	
	Ball, A. C.,	.. St. George's, Mangalore,	1126.41	
	Jackson, G. d'A.,	.. Lieut. Genl. Inst. Cavalry,	1120.41	

UPPER SUBORDINATE CLASS.

(Full Marks, 1000).

1	Graham, W.,	.. Sergt., Sappers and Miners,	1418.00	Higher Standard. Prizes for General Merit, Mathematics and Civil Engineering
2	Marshall, E.,	.. Gunr., B-S, Royal Artillery,	1006.00	Prizes for Surveying and Drawing
3	Barri, H.,	.. Private, Sappers and Miners,	1061.00	Higher Standard Extra Prize for Civil Engineering
4	Newland, J.,	.. Private, Sappers and Miners,	1028.67	Extra Prize for Drawing.
5	Collogher, G.,	.. Sergeant, 77th Regiment,	1029.64	Higher Standard.
6	Robertson, J.,	.. Private, Sappers and Miners,	1006.63	
7	Schofield, C.,	.. Private, 7th Hussars,	997.63	
8	Scott, W.,	.. Private, Sappers and Miners,	968.60	Higher Standard.
9	Freeman, A.,	.. Private, 80th Regiment,	948.59	
10	Bourne, W.,	.. Corpl., Sappers and Miners,	900.54	
11	McKewan, J.,	.. Private, Sappers and Miners,	894.52	
12	Chisholm, C.,	.. Private, 90th Highlanders,	807.50	
13	LeMaistre, E.,	.. ..	797.50	
14	Allen, G.,	.. Private, Sappers and Miners,	780.47	
15	Buchanan, A.,	.. Sergeant, 51st Regiment,	747.47	
16	Dallas, D.,	.. Corpl., Sappers and Miners,	735.46	
17	Scott, A.,	.. Corporal, 54th Regiment,	712.45	
18	McEwen, J.,	.. Private, 7th Hussars,	708.44	
19	Parrott, J.,	.. Private, 25th Regiment,	693.42	
20	Bischo, W.,	.. Private, Sappers and Miners,	649.40	

No.	Name.	Rank and Corps, and where obtained.	Points gained.	Remarks.
22	Smith, T. W.,	.. Gunner, 5-19, Royal Arty.,	523.40	
23	Furlong, W.,	.. Private, 88th Regiment, ..	519.80	
24	Morris, P.,	.. Private, Bappers and Miners,	505.58	
25	Howe, B.,	.. Corpl, Bappers and Miners,	495.31	
26	Boyd, T.,	.. Private, 7th ..	494.91	
27	Lyons, H.,	.. Corpl, 31st Regiment,	484.19	
28	Molish, B.,	.. Private, 88th Regiment, ..	441.28	

SUBORDINATE

(Full Marks, 1000)

1	Ali Muhammad,	.. Moradabad,	.. 1049.72	Higher Standard. Prizes for General Merit and Drawing
2	Bhimokant,	.. Sikandarabad,	.. 996.67	Higher Standard. Prizes for Civil Engineering.
3	Saidar Hussain,	.. Meerutbazar,	.. 902.63	
4	Pyari Lal,	.. Sikandarabad,	.. 772.52	
5	Mahesh Ali,	.. Bygon,	.. 760.52	
6	Rashtak,	.. Balundshahr,	.. 762.38	
7	Baldeo Prasad,	.. Najibabad,	.. 734.89	Prize for Mathematics.
8	Rafi-ud-din,	.. Amroha,	.. 726.50	
9	Ganpat Ray,	.. Khandla,	.. 708.49	
10	Ali Ahmad,	.. Saharapur,	.. 687.47	
11	Gopal Prasad,	.. Moradabad,	.. 674.46	
12	Parma Lal,	.. Deoband,	.. 646.45	
13	Datta Ray,	.. Umballa,	.. 626.45	
14	Bodh Parkash,	.. Balundshahr,	.. 589.41	
15	Abdur Rahman,	.. Deoband,	.. 575.40	
16	Ramanand,	.. Boorkee,	.. 561.39	
17	Momen Ali,	.. Agra,	.. 561.38	
18	Parkash Lal,	.. Balundshahr,	.. 559.69	
19	Muhammad Asim,	.. Umballa,	.. 546.68	
20	Tek Chand,	.. Bygon,	.. 535.57	
21	Chudami Lal,	.. Bygon,	.. 530.56	
22	Chajid Singh,	.. Meerut,	.. 515.55	
23	Rahmat-sikah,	.. Moradabad,	.. 503.55	
24	Singh,	.. Deoband,	.. 498.54	
25	Gulab Singh,	.. Meerut,	.. 493.54	
26	Lal,	.. Meerut,	.. 405.53	

1884

HIGHER CLASS

(Full Marks, 2250)

1	Schold, E. A.,	.. Mr. Lyons's, Miners,	.. 1815.67	Higher Standard. Council of India Prize of Rs. 1,000 Cantley Gold Medal
2	F. D. M., & Co.,	.. Luck., 101st ..	.. 1785.67	Higher Standard. Col. Medley's Prize for Civil Engineering

1894.

No.	Name.	Rank and Corps, and where attached.	Age	Prize	Remarks.
2	Downing, A. H.	.. Lieut., 24th Native Infantry.	1792	68	} Higher Standard.
3	Shepherd, C. E.	.. Lieut., Genl. List, Infantry.	1746	61	
4	Forsie, W.	.. Lt. Martin's, Lucknow.	1715	60	
5	Bandeman, J. H.	.. Lieut., Genl. List, Infantry.	1560	54	
6	Penn, J. H.	.. Mr. Maddock's, Massachusetts.	1554	54	
7	Wright, W. C.	.. Mr. Maddock's, Massachusetts.	1549	54	
8	MacDowall, G. R.	.. Lt. Martin's, Lucknow.	1518	53	
UPPER SUBORDINATE CLASS.					
(Full Marks, 1893).					
1	Smart, D.	.. Gunner, 1-44, Royal Art.	1403	68	} Higher Standard. Prizes for General Merit, Mathematics and Surveying.
2	McCarthy, H.	.. Gunner, F-16, Royal Art.	1340	64	
3	Paterson, J.	.. Private, 7th Highlanders.	1270	78	} Higher Standard. Prizes for Civil Engineering.
4	Fearce, G.	.. Pte, 2nd Bn., Rifle Brigade.	1133	75	
5	Dunlop, E.	.. Lieut. Serjt., 54th Regiment.	1169	73	} Prizes for Drawing.
6	Porter, J. G.	.. Corporal, 21st Bannockburn.	1154	73	
7	Southon, J.	.. Gunner, D-31, Royal Art.	1114	70	
8	Telford, F. H.	.. Private, Buffers and Miners.	1050	68	
9	Synn, T.	.. Pte, 3rd Bn., Rifle Brigade.	1004	68	
10	Thompson, H.	.. Corporal, G-31, Royal Art.	889	69	
11	Nicol, W. H.	.. Gunner, D-31, Royal Art.	889	69	
12	Kennedy, J.	.. Lieut. Serjt., 60th Regiment.	808	61	
13	Wade, G. F.	..	773	49	
14	Phillips, J.	..	774	49	
15	Murray, O.	.. Gunner, A-31, Royal Art.	771	49	
16	Hughes, H.	.. Private, 42nd Regiment.	747	47	
17	Tennant, E. J.	.. Private, Buffers and Miners.	738	46	
18	McLean, J.	.. Lieut. Corpl., 42nd Regiment.	708	44	
19	Reidman, T.	.. Gunner, E-31, Royal Art.	694	44	
LOWER SUBORDINATE CLASS.					
(Full Marks, 1893).					
1	Bokan, Lal.	.. Rajah.	1270	78	} Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering, Surveying and Drawing.
2	Natisho Raja.	.. Sikandarabad.	1008	67	
3	Durga Prasad.	.. Sayabhad.	943	64	} Higher Standard.
4	Khetwakti Ray.	.. Nakar.	943	64	
5	Fakir Chand.	.. Bulandshahr.	894	60	
6	Ganga Babay.	.. Bijnor.	808	56	
7	Bhori Babankar.	.. Sikandarabad.	789	49	
8	Yakub Ali.	.. Delhi.	737	49	
9	Kanaya Lal.	.. Moradabad.	681	46	
10	Chandea Lal.	.. Sikandarabad.	610	41	
11	Ali Hussain.	.. Bulandshahr.	610	41	

1885.

No.	Name.	Rank and Corps, and where educated.	Age	Remarks.
EUROPEAN CLASS.				
<i>(Full Marks, 2000).</i>				
1	Dodsworth, G. W.,	.. Saint George's, Monrovia,	1853-53	<i>Higher Standard.</i> Council of India Prize of Rs. 1,000. Col. Medley's Prize for gunnery.
2	Johnson, W. R.,	.. La Martinique, Lucknow, ..	1885-48	
3	Wavell, L.,	.. Lieut., 2nd B. Infantry, ..	1874-52	Col. Macdonald's Prize for gunnery.
4	Ross, F. E.,	.. Mr. Lewis's, Masoorie, ..	1848-46	
5	Mont, H. L.,	.. Mr. Lewis's, Masoorie, ..	1806-47	
6	Cummins, G.,	.. La Martinique, Lucknow, ..	1173-50	
UPPER SUBORDINATE CLASS.				
<i>(Full Marks, 2000).</i>				
1	Flynn, W. J.,	.. Sergeant, 21st Hussars, ..	1240-76	<i>Higher Standard.</i> Prizes for General Merit, Civil Engineering and Surveying.
2	Turner, J.,	.. Gunner, E-C, R. H. Arty, ..	1217-74	<i>Higher Standard.</i> Extra Prize.
3	Katz, C.,	.. Lance-Corporal, 51st Regt., ..	1132-73	<i>Higher Standard.</i> Prizes for Mathematics.
4	Tulse, W.,	.. Corpl., Sappers and Miners, ..	1139-69	<i>Higher Standard.</i>
5	Katet, W.,	.. Driver, F-C, R. H. Arty, ..	1137-69	
6	Dowson, J.,	.. Private, 7th Regiment, ..	1133-69	
7	Henry, A.,	.. Lieut. Col., 79th Highlanders, ..	1110-63	
8	Lee, G. C.,	.. Private, 34th Regiment, ..	1078-65	
9	McKenna, P.,	.. Private, 20th Regiment, ..	1074-65	
10	Howe, C.,	.. Gunner, S-24, Royal Arty, ..	1035-64	
11	Bushanan, G.,	.. Corpl., Sappers and Miners, ..	1025-62	Prize for Drawing.
12	Munro, J.,	.. Corpl., 4-24, Royal Artillery, ..	997-60	
13	Walke, K. R.,	.. Pte, 1st Bn., 7th Fusiliers, ..	906-60	Prize for Chemistry
14	Sullivan, R.,	.. Private, 21st Hussars, ..	906-59	
15	Johnson, J.,	.. Pte, 1st Bn., 7th Fusiliers, ..	889-58	
16	McGregor, C.,	.. Private, 42nd Regiment, ..	886-54	
17	Herbert, J.,	.. Private, 10th Regiment, ..	887-54	
18	Wickens, C.,	.. Bomb., B-31, Royal Arty, ..	872-53	
19	Cunningham, C.,	.. Bomb., B-18, Royal Arty, ..	847-51	
20	Coomes, W.,	.. Lance-Corpl., 46th Regt., ..	823-50	
21	Carroll, J.,	.. Gunner, B-19, Royal Arty, ..	819-50	
22	Pearson, W.,	.. Private, 54th Regiment, ..	817-50	
23	Mollindore, J.,	.. Pte, Sappers and Miners, ..	711-48	
24	Murphy, J.,	.. Corpl., Sappers and Miners, ..	678-41	
25	Leahy, T.,	.. Lieut.-Corpl., 21st Hussars, ..	672-41	
26	Ruthe, J.,	.. Corpl., 51st Regiment, ..	655-40	
27	Charis, J.,	.. Dr.-Tropic, G.O., R.H. Arty, ..	635-38	
Second Class.				
1	Newman, C. R.,	.. Corpl., Royal Engineers, ..		<i>Higher Standard.</i> Special Prize given by the Council.

1885

No.	Name.	Rank and Corps, and where educated.	Age at entry.	Remarks.
2	Egan, H.	.. Corpl, Royal Engineers, ..	1117 68	Higher Standard Special Prize given by Principal.
3	Tate, A.	.. Corpl, Royal Engineers, ..	1006 61	Higher Standard Special Prize given by the Assut. Principal.
4	Walker, R.	.. Corpl, Royal Engineers, ..	874 59	Prize for Drawing
5	Mill, W. R.	.. Sergt, Royal Engineers, ..	901 55	
6	Imrie, D. B.	.. Corpl, Royal Engineers, ..	882 54	
7	Lemon, E.	.. Corpl, Royal Engineers, ..	884 54	
8	Miller, R.	.. Corpl, Royal Engineers, ..	927 50	
9	Dadson, A.	.. Sapper, Royal Engineers, ..	886 50	
10	Troup, J.	.. Corpl, Royal Engineers, ..	831 50	
11	Treadaway, G.	.. Corpl, Royal Engineers, ..	812 49	
12	Algar, A.	.. Sapper, Royal Engineers, ..	799 48	
13	Tait, W. R.	.. Sapper, Royal Engineers, ..	794 48	
14	Kelly, J.	.. Corpl, Royal Engineers, ..	784 48	
15	Cockburn, J.	.. Corpl, Royal Engineers, ..	765 46	
16	Jamieson, W.	.. Sapper, Royal Engineers, ..	716 43	
17	Sanward, M.	.. Sapper, Royal Engineers, ..	709 43	
18	Fraser, J.	.. Sapper, Royal Engineers, ..		
19	McAllister, R.	.. Sapper, Royal Engineers, ..		
20	Lowe, W. M.	.. Sapper, Royal Engineers, ..		
21	Murphy, W.	.. Sapper, Royal Engineers, ..		
22	Murphy, J.	.. Corpl, Sappers and Miners, ..	765 47	
23	Jones, W.	.. Corpl, A.-18, R. Artillery, ..	743 45	
24	Davis, J.	.. Private, 1st Bata., 14th Regt.	729 44	

LOWER SUBORDINATE CLASS.

(Full Marks, 1880).

1	Tajammul Hassan, ..	Deoband, ..	1202 78	Higher General Merit, Engineering, Surveying and Drawing.
2	Sri Prasad,	.. Belandahat,	1190 77	Higher Merit, Mathematics and Drawing.
3	Thakur Das,	.. Jagdishri,	1099 70	
4	Het Ram,	.. Deoband,	1058 68	
5	Jagannath,	.. Deoband,	1036 65	
6	Dhanna Lal,	.. Ambhatta,	1021 60	
7	Kundan Lal,	.. Deoband,	999 54	
8	Muhammad Kowis,	.. Sahatpur,	985 54	
9	Shama-ud-din,	.. Belandahat,	959 52	
10	Abdall Beg,	.. Belandahat,	953 51	
11	Narayan Das,	.. Jagdishri,	952 51	
12	Sharif Ali,	.. Amroha,	906 58	
13	Rhagrat Das,	.. Sikandarpur,	896 58	
14	Amrat Ali,	.. Faat,	859 55	
15	Parmanand,	.. Jagdishri,	859 55	
16	Sabbi-ud-din,	.. ..	794 51	
17	Gopal Singh,	.. Nagina,	765 49	
18	Asir-ud-din,	.. Sikandarpur,	732 47	
19	Gobind Prasad,	.. Nagina,	681 44	
20	Ram Das,	.. Belandahat,	680 44	

YEARLY LIST.

No.	Name	Rank and Corps, and where obtained	Mark	Prize	
21	Aladya,	.. Saharanpur,	..	678.44	
22	Gur Dayal Singh,	.. Saharanpur,	..	674.48	
23	Gulab Singh,	.. Bulandshahr,	..		
24	Muhammed Nadir,	.. Saharanpur,	..		
25	Chakra Singh,	.. Deoband,	..		
Class					
(Full Marks, 350)					
1	Mohd Singh,	.. Mason,	..	347.71	} Passed as Head Artificers
2	Mohd Singh,	.. Carpenter,	..	348.71	

1885

CLASS				
(Full Marks, 2000).				
1	Wither, A. O.,	.. Launch, Genl. Land Infantry,	3109.71	Higher Standard Government Prize of Rs. 1,000 Thomson and Cantley Gold Medal Colonel Macgregor's Prize for Physical Science Col. Medley's Prize for Civil Engineering
	Smith, W.,	.. La Martinière, Lucknow,	1855.83	
	Smart, J.,	.. La Martinière, Lucknow,	1461.70	
4	Trenham, J.,	.. Mr Maddock's, Munro,	1425.00	
5	Barker, W.,	.. La Martinière, Lucknow,	1835.48	
	Thomas, H.,	.. Major, Royal Artillery,	1806.44	
	Hall, F. T.,	.. England,	978.88	
CLASS				
(Full Marks, 1000)				
1	Fullwood, B.,	.. Private, 20th Regiment,	1222.80	Higher Standard Prizes for General Mact, Mathematics and Civil Engineering
2	Clifton, H.,	.. Private, 2-12th Regiment,	1111.11	Higher Standard Prizes for Surveying and Drawing
3	Phillips, W.,	.. Or-Mr Sgt, F-18, R. Arty,		Higher Drawing
4	Hogan, P.,	.. Gunner, 2-24, Royal Arty,	1143.71	
5	Kennedy, J.,	.. Pte, Sappers and Miners,	1118.70	
6	Williams, B.,	.. Corp, 6-32, Royal Arty,	1094.68	
7	Nelson, J.,	.. Private, 1-20th Regiment,	1068.67	Higher Standard
8	Hackett, A.,	.. Corp, Sappers and Miners,	1061.60	
9	Chapman, J.,	.. Driver, F-C, R. II Arty,	1043.86	
10	Cardwell, C.,	.. Private, 2nd Hussars,	1047.85	
11	Allen, J.,	.. Private, 5th Lancers,	1000.88	
12	Grooming, T.,	.. Bomber, 4-25, Royal Arty,	997.82	
13	Chad, J.,	.. Private, 2-12th Regiment,	988.88	Prize for Physical Science

1868.

No.	Name.	Rank and Corps, and where educated.	Mark obtained.	Percent.	Remarks.
14	Slackley, W.	...Sapper, Royal Engineers,	855	69	
15	Widling, J.	...Private, 21st Hussars,	845	59	
16	Brady, K.	...Private, 2-12th Regiment,	842	58	
17	James, L. H.	...Sergeant, B-18, R. Art.	838	58	
17	O'Reilly, W.	...Private, 2-12th Regiment,	835	58	
19	Pear, S.	...Sergeant, Unattached List,	818	57	
20	Kristo Chandler,	...	814	57	
21	Fennell, G.	...Gunner, 2-84, Royal Art.	811	57	
22	Perrin, W.	...Gunner, F-11, Royal Art.	809	56	
23	Radhak, T.	...Private, 19th Hussars,	817	51	
24	Hari Chand,	...	813	53	
25	Douglas, J.	...	790	49	
25	Mulvihill, M.	...Sapper, Royal Engineers,	776	48	
27	Aashetosh Singh,	...	769	47	
28	McDermott, A.	...Private, 24th Regiment,	758	47	
29	Slackley, W. S.	...Sapper, Royal Engineers,	753	47	
30	Tilgh, J.	...Private, 24th Regiment,	742	46	
31	Wren, F.	...Private, 2-12th Regiment,	741	45	
32	Pondell, J.	...Private, 24th Regiment,	739	45	
33	Bahall Ram,	...	698	46	
34	Hunter, J.	...Sergt, Unattached List,	685	45	
35	Fraser, S.	...Private, 43rd Regiment,	639	41	
36	Goy, T.	...Private, 19th Hussars,	649	41	
37	Burke, H.	...Corpl, Sappers and Miners,	645	40	
38	Wentou, C.	...Gunner, C C, R H. Art.	638	40	
39	Edwards, J.	...Corpl, 21st Hussars,	608	39	
40	Kennedy, J.	...Private, 46th Regiment,	488	30	
41	Georven, W.	...Private, 104th Regiment,	457	30	
42	Reynolds, T.	...Gunn, S F, R H. Art.	340	31	
43	Gillies, H.	...Private, 27th Regiment,	331	16	
LOWER SUBORDINATE CLASS.					
(Full Marks, 1860).					
1	Abdel Gam,	...Bareilly College,	1307	64	Higher Standard Prize for General Merit, Civil Engineering and Drawing.
2	Din Dayal,	...Benifusa,	1317	70	Higher Standard Prize for Surveying.
3	Shagwin Das,	...Sikandarnahad,	1123	73	
4	Dewan Singh (1),	...Sikandarnahad,	1117	73	
5	Kandan Lal,	...Ambahda,	1088	71	Prize for Mathematics.
6	Radha Kishan,	...Anupabhar,	1054	65	
7	Himayat Ali,	...Sikandarnahad,	1004	65	
8	Ali-ud-din,	...Amroha,	974	65	
9	Ram Dayal,	...Bulandshahr,	956	63	
10	Jhandu Mal,	...Gangoh,	934	60	
11	Shib Bahay,	...Saharanpur,	928	60	
	Dewan Singh (2),	...Nikhar,	900	56	
	Dina Mal,	...Bardhaman,	891	57	
	Raja Ram,	...Ambahda,	864	56	
	Chand Lal,	...Khatrya,	845	55	
	Gandan Lal,	...Bunger,	836	54	

1896.

No.	Rank.	Rank and Corps, and where obtained.	Merit Medal.	Remarks.
17	Bansi Dhan,	.. Ambala,	.. 819.28	
18	Aladya,	.. Ambala,	.. 805.28	
19	Kalyan Ray,	.. Moradabad,	.. 801.50	
20	Mand Lal,	.. Meerut,	.. 794.51	
21	Ramjan,	.. Sikanderabad,	.. 794.51	
22	Dipkma Barop,	.. Sikanderabad,	.. 754.49	
23	Mori: D,	.. Sikanderabad,	.. 712.49	
24		.. Bulandshahr,	.. 694.45	
ENGINEER CLASS.				
(Full Marks, 350).				
1	Bedam Singh,	.. Carpenter,	.. 180.51	} Passed on Head Artillery.
2	Dil Bakh,	.. Mason,	.. 110.00	
3	Jurakh,	.. Mason,	.. 139.54	

1897.

ENGINEER CLASS.				
(Full Marks, 3000).				
1	Nelson, P,	.. La Martiniera, Lucknow,	.. 241.00	Higher Standard. Council of India Prize of Rs. 1,000. Campbell Gold Medal. Col Macleagan's Prize for Physical Science. Col Medley's Prize for Civil Engineering.
2	Gordon, N,	.. Lieut, 36th Highlanders,	.. 214.71	Higher Standard. Government Prize of Rs. 1,000.
3	Lallugupta, W. S., M.A.	.. Lieut, 14th Hussars,	.. 211.70	Higher Standard. Government Prize of Rs. 1,000. Thomson Gold Medal.
	Brd, G,	.. La Martiniera, Lucknow,	.. 183.04	Higher Standard.
	London, A.,	.. Lieut., Genl. List,	.. 147.59	

UPPER ENGINEER CLASS.

(Full Marks, 1000).

1	Wiseman, W,	.. Corp., Royal Engineers,	.. 1241.76	Higher Standard. Prize for General Merit and Drawing.
2	Ainsworth, J,	.. Sergt, Sappers and Miners,	.. 1231.77	Higher Standard. Prize for Civil Engineering.
3	Down, J,	.. Gunner, B-34, Royal Arty,	.. 1225.77	Higher Standard.
4	Frans, G,	.. Gunner, G-15, Royal Arty,	.. 1129.70	Higher Standard. Extra Prize for Physical Science.
5	Hairley, J. H,	.. Private, 24th Regiment,	.. 1097.65	Higher Standard. Prize for Surveying.
	Bedford, R,	.. Gunner, D-A, R. H. Arty,	.. 1095.00	} Higher Standard.
	Grant, S. W.,	.. Gunner, G-15, Royal Arty,	.. 1076.57	
	Samell, J,	.. Private, 77th Regiment,	.. 1067.58	

1887

No.	Name.	Rank and Corps, and where situated.	Age	Points	Remarks.
9	Atkinson, C.	.. Sergt., Barrack Department.	1012	64	<i>Higher Standard.</i>
10	Follock, J.	.. Corporal, 23rd Regiment.	1014	59	
11	Phelan, T.	.. Color-Sergt., 77th Regt.	1000	58	
12	Lemela, J.	.. Lieut.-Col., Strathgillanders.	992	62	
13	Morgan, H.	.. Private, 19th Hussars.	978	61	Prize for Mathematics
14	Blackwell, J.	.. Corp., Sappers and Miners.	960	60	
15	Gearing, R.	.. Gunner, G. G.'s Band.	899	59	
16	Brady, G.	.. Sergeant, 26th Regiment.	890	58	
17	Malloy, F.	.. Private, 21st Hussars.	918	57	
18	Smith, H.	.. Private, 21st Regiment.	909	57	
19	Worth, J.	.. Corporal, Royal Engineers.	895	56	
19	Moylan, W.	.. Sapper, Royal Engineers.	895	56	
21	Daly, D.	.. Gr., D-A., R. H. Artillery.	889	56	
22	Geovan, J.	.. Drummer, 1-11th Regiment.	887	55	
23	Hardy, T.	.. Corp., Sappers and Miners.	884	55	
24	Hamilton, H.	.. Gunner, 5-25, Royal Arty.	879	55	
24	Jewell Basky.	..	879	55	
26	Ferna, J.	.. Gunner, 5-25, Royal Arty.	878	55	
27	Jackson, A.	.. Private, 21st Hussars.	876	55	
28	Gardner, J.	.. Corporal, Royal Engineers.	871	54	
29	Cook, E.	.. Sergt., 3rd Bn., Rifle Brigade.	867	54	
30	Gulab Singh.	..	865	54	
31	Clarke, J.	.. Lieut.-Col., 3rd Bn., Rifle Bde.	849	53	
32	Reid, W.	.. Private, 26th Regiment.	847	53	
33	Tobin, W. T.	.. Sergeant, 5-25, Royal Arty.	837	53	
34	Baldoo Prasad.	..	823	52	
35	Lyons, J.	..	779	49	
36	McCallum, W.	.. Lieut.-Sergt., 1-21st Regt.	768	48	
37	Behari Lal.	..	750	47	
38	McCarthy, J.	.. Private, 26th Regiment.	286	18	
LOWER SUBORDINATE CLASS.					
<i>(Full Marks, 1880).</i>					
1	Ramji Lal.	.. Bernat.	1192	77	<i>Higher Standard. Prize for General Merit, Civil Engineering, Surveying and Drawing</i>
2	Rahim Baksh (1).	.. Sahibnagar.	1062	69	
3	Ramji Das.	.. Sahibnagar.	1060	69	<i>Higher Standard. Prize for Mathematics.</i>
4	Abrar	.. Amroha.	962	62	
5	Habib Ali.	.. Bulandshahr.	978	63	<i>Higher Standard.</i>
6	Abdul Karam.	.. Garhmukhlana.	975	62	
7	Harjes Ray.	.. Bulandshahr.	967	62	
8	Mahammad Husam.	.. Naktar.	947	61	
9	Narayan Das.	.. Bulandshahr.	939	60	
10	Girdhari Lal.	.. Jalandharabad.	936	60	
11	Maggan Lal.	.. Bulandshahr.	913	59	
12	Muhtak Ahmad.	.. Azamkhan.	905	58	
13	Abdus Shakur.	.. Nagina.	898	58	
14	Maschar Lal.	.. Deoband.	867	55	
15	Janki Das.	.. Ambahia.	844	54	
16	Talal	.. Rajshah.	827	54	

1897.

No.	Name.	Rank and Corps, and where obtained	Mark obtained	Prize
17	Shi [redacted]	.. Moeat,	..	637.54
17	Mazhar Hussam,	.. Baharspur,	..	637.54
19	Dhan Singh,	.. Moeat,	..	631.54
	Shib Das,	.. Hapur,	..	779.50
	Akram Ali,	.. Sikanderabad,	..	774.50
	Saymest Khan,	.. Nakdr,	..	772.50
	Harnam Singh,	.. Landhaura,	..	771.50
	Hal Chand,	.. Deoband,	..	752.47
25	Banki Lal,	.. Sikanderabad,	..	709.48
	Cham Bakh,	.. Deoband,	..	699.45
	Bahim Bakhsh (3),	.. Moeat,	..	694.45
26	Ala Bakhsh,	.. Najabad,	..	687.44
	Gulam Morias,	.. Baharspur,	..	664.43
30	Zahur Ahmad,	.. Deoband,	..	637.43
31	Etem Sarop,	.. Sikanderabad,	..	641.41
(Full Marks, 800)				
1	Chini Lal,	.. Moeat,	..	240.00

Head Artificer

1898.

ENGINEER CLASS.
(Full Marks, 2000).

1	Graves, H	.. England,	..	2145.74	Higher Standard. Council of India Prize of Rs 1,000. Canby Gold Medal. Colonel Medley's Prize for Civil Engineering.
2	Ellison, E. C.,	.. Bengal, 50th Regiment,	..	1908.63	Higher Standard. Government Prize of Rs 1,000.
3	Bradley, B.,	.. St. Xavier's Col., Calcutta,	..	1683.83	Higher Standard.
4	Smallman, H.,	.. St. George's, Madras,	..	1653.67	
5	Koolan, E. J.,	.. Mr. Maddock's, Madras,	..	1549.67	Thomson Gold Medal.
6	Palmer, H.,	.. England,	..	1553.64	
7	Miller, J. F.,	.. Ensign, 1st Bn., 19th Regt.,	..	1496.60	
8	Deane, F. F.,	.. Mr. Maddock's, Madras,	..	1180.39	
9	Udin, G. H.,	.. Lieut., 103rd Light Infy.,	..	812.26	

UPPER SUBORDINATE CLASS.
(Full Marks, 1500).

1	Hodges, E.,	.. England,	..	1539.99	Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering, Surveying, and Special Prize for Physical Science.
2	Jackson, R.,	.. Private, 21st Hussars,	..	1245.83	Higher Standard. Special Prizes for Photography.
3	Grogg, G.,	.. Private, 90th Regiment,	..	1210.79	
4	Scollard, J.,	.. Private, 1-5th Regiment,	..	1206.78	
5	Chapman, T.,	.. S. Smith, B.A., R. H. Army,	..	1205.78	
6	Bradley, T.,	.. Private, 2-12th Regiment,	..	1205.78	
7	Perry, W.,	.. Sergeant, 105th Regiment,	..	1204.78	

1888

No.	Name.	Rank and Corps, and where obtained.	Age and Service.	Remarks.
8	Spazko, G. T.,	.. Corporal, C-8, Royal Arty.,	1135 66	Higher Standard. Prize for Drawing
9	Stewart, J.,	.. Lance-Corporal, 77th Regt.,	1116 65	Higher Standard
10	Stynes, M.,	.. Private, 2-12th Regiment,	1114 65	
11	Gibney, J.,	.. Private, 24th Regiment, ..	1085 65	Special Prize for Urdu.
12	McCarthy, J.,	.. Private, 26th Regiment, ..	1054 65	
13	Riddale, W.,	.. Bomb, A-F, H H Arty.,	1055 64	
14	Paco, T.,	.. Sergt., A-F, H H Arty.,	1042 63	
15	Henderson, F. A.,	.. Corp., 100th Regiment, ..	1038 63	
16	Radcliffe, H. O.,	.. Tp. Sergt-Major, 21st Hrs.,	1038 63	
16	Dasher, B.,	.. Private, 2-12th Regiment,	1036 63	
18	Henry, G.,	.. Lt. Marston, Locknow, ..	1024 62	
19	Braslow, J.,	.. Lance-Corp., 21st Hussars,	1015 62	
20	Wilson, J.,	.. Gunner, A-A, R. H. Arty.,	994 60	
21	Leung, J.,	.. Gunner, B-A, R. H. Arty.,	989 60	
22	Taylor, G.,	.. Sergt., Sappers and Miners,	976 59	
23	Thompson, J. F.,	.. Private, 1st Hussars, ..	975 59	
24	Rogers, S.,	.. Private, [redacted] Regiment, ..	960 58	
25	Kapoor Singh,	.. [redacted]	950 58	
26	Condit, H.,	.. Lawrence Military Asylum,	945 57	Prize for Urdu.
27	Fortgate, J.,	.. Lance-Corp., 104th Regt.,	942 57	
28	Matthews, H.,	.. Lance-Sergt., 21st Hussars,	940 56	
29	Moore, T.,	.. Lance-Sergt., 1-11th Regt.,	930 56	
30	Cowley, G.,	.. Private, 20th Hussars, ..	920 55	
31	Williamson, J.,	.. Corp., Royal Engineers, ..	875 53	
32	Cowley, J.,	.. Lt. Marston, Locknow, ..	874 53	
33	McAlister, J.,	.. Gunner, F-19, Royal Arty.,	861 52	
34	Shepherd, W.,	.. Private, 54th Regiment, ..	856 51	
35	Connolly, S.,	.. Lance Corp., 7th Hussars,	775 47	
36	Macartney, H.,	.. Private, 77th Regiment, ..	761 46	
38	Hanan Muhammad,	.. [redacted]	757 45	
39	Salig Ram,	.. [redacted]	755 45	
39	Clarke, T.,	.. Sergt., Royal Engineers, ..	445 37	
40	[redacted] Ltd,	.. [redacted]	..	
(Full Marks, [redacted])				
Sub-Overseers, (Military).				
1	Ali Vadhaya,	.. Sepoy, Bengal S. and M.,	549 54	Special [redacted]
2	Sheikh Ali,	.. Sowar, 1st Regt., C I H.,	530 53	
3	Mehbab Ali,	.. Sowar, 6th Regt., B O., ..	489 51	
4	Narayan Singh,	.. Sepoy, Bengal S. and M., ..	468 50	
5	Hamdan Khan,	.. Sepoy, Bengal S. and M., ..	507 50	
6	Ahmad Hussain,	.. Dufadar, 6th Regt., B C.,	525 51	
7	Imam Bakhsh,	.. Sepoy, Bengal S. and M., ..	525 50	
Sub-Overseers, (Civil).				
1	Muhammad AR,	.. Master,	125 78	Higher Standard. Prizes for General Merit, Mathematics, and Surveying.
2	Shao [redacted]	.. Akbarpur,	118 74	Higher [redacted] Prize for Civil Engineering.

YEARLY LIST.

No.	Name.	Rank and Corps, and School.	Maths.	English.	Remarks.
2	Shankar Lal,	Bajoor,	1000 62		Prize for Drawing.
4	Jamna Dās,	Amroha,	1078 67		
5	Babhan Chand,	Landhiana,	1068 66		
6	Sukh Lal,	Agra College,	1019 64		
7	Lachman Bahay,	Bulandshahr,	1012 63		Higher Standard.
8	Bakshar Prasad,	Chutari,	993 62		
9	Nadan Singh,	Moorat,	978 61		
10	Bant Lal,	Umhalia,	964 60		Special Award for English
11	Muhammad Ali Khan,	Bareilly College,	962 59		
12	Salig Ram,	Jagadhri,	959 58		
13	Nar Singh Dās,	Jagadhri,	950 56		
14	Lamat Singh,	Deoband,	935 53		
15	Wah Muhammad,	Moorat,	797 50		
16	Muhammad Alladid,	Pattalia,	790 49		
17	Abdul Aziz,	Shahjahanpur,	774 48		
18	Hardeo Prasad,	Beswan,	745 47		
19	Chotan Lal,	Roorkee,	736 46		
20	(Amjās Dās,	Moorat,	699 45		
21	Sham Lal,	Moorat,	678 43		
22	Kharag Singh,	Madhopur,	663 41		
23	Basmir Khan,	Shahjahanpur,	656 41		
24	Ramp Dās,	Kashipur,	646 37		
25	Nabi Baksh,	Deoband,	639 36		
Merit Class					
(Full Marks, 250)					
1	Shiba,	Mason,	200 57		
2	Médl Dhar,	Mason,	186 52		

1869

EXAMINATION CLASS					
Maths. Marks, English.					
1	Evans, C,	England,	2200 75		Higher Standard Council of India Prize of Rs 1,000 Copley Gold Medal for Mathematics Col Macleagan's Prize for Physical Science Col Medley's Prize for Civil Engineering
2	Denlop, S. J,	Leak, 2nd R. W. Fusiliers,	1967 69		Higher Standard Thomson Gold Medal for Design
3	O'Tool, L.,	Lawrence Military Asylum,	1766 60		Higher Standard
4	Nelson, R.,	La Martinière, Lucknow,	1695 54		
5	Beeson, R.,	R D College, Vungapetana,	1669 53		
6	W M,	Lieut, 2nd Sikh Infantry,	1476 50		
7	W,	Madras School,	1368 48		
8	Brown, W H,	Lieut, 7th Fusiliers,	1061 36		
9	O'Sullivan, E,	St. Xavier's, Calcutta,	798 27		

1889

No.	Name.	Rank and Corps, and where obtained.	Age	Grade	Remarks.
UPPER SUBORDINATE CLASS.					
(Full Marks, 1889)					
1	Higgins, J.	Private, 26th Hussars.	1862	76	Higher Standard. Prize for General Merit.
2	██████, P.	Private, 106th Regiment.	1260	76	Higher Standard. Prize for Civil Engineering and Surveying.
3	Pearson, W.	Lance-Corpl., 30th Hussars.	1949	76	Higher Standard. Prize for Mathematics.
4	Dahoon, G.	Trumpeter, C-8 Royal Art.	1293	75	Higher Standard.
5	Hill, W.	Trip-Sergeant-Major, 11th Hrs.	1208	75	Higher Standard. Prizes for Drawing & Physical Science.
6	Horne, F.	██████ F.O., R.H. Artillery.	1194	72	
7	Green, T.	Lance-Corpl., 102nd Regt.	1190	72	
8	Smiler, M.	St. Peter's College, Agm.	1116	68	
9	Reed, R.	Lance-Corpl., 1-6th Regt.	1112	67	
10	Giles, J.	Cr.-Sergt., 102nd Regiment.	1300	67	Higher Standard.
11	Kawland, W.	Gunner, R.A., R.H. Art.	1053	64	
12	Reynolds, J.	Lance-Corpl., 104th Regt.	1038	64	
13	Fryer, P.	Private, 53rd Regiment.	1058	64	
14	Young, E.	Bombt., 8-22 R. Artillery.	1068	64	
15	McGarity, J.	Sergt., 32nd Highlanders.	981	59	Special Prize for Photography.
16	Cook, J.	Ptn., 3rd Bn., Rifle Brigade.	979	59	
17	McKinn, I.	Boat, C-A, R.H. Artillery.	966	59	Higher Standard.
17	Assad d'm.		964	59	
18	Shaw, G.	Private, 89th Regiment.	964	59	
19	Douglas, H.	Private, 89th Regiment.	960	58	
20	Withey, J.	Private, 89th Regiment.	956	58	
21	Ram Prasad.		935	58	
22	Graham, O.	Gunner, R-16, R. Artillery.	954	58	
23	Morley, P.	Private, 106th Regiment.	927	56	
24	Bahat Ray.		912	55	
25	Gray, J.	Lee-Sergt., 106th Regiment.	898	54	
26	Robinson, T.	Cr.-Mr. Sergt., 1st M. R. I.	889	54	Special Prize for Urdu.
27	Hahn Bakshah.		887	54	
28	Kidernath Mitw.		883	54	
29	Byrnes, F.	Lance-Corpl., 1-11th Regt.	876	53	
30	Seaward, J.	Lance-Corpl., 104th Regt.	871	53	
31	Twiss, J.	Lance-Corpl., 30th Hussars.	869	52	
32	Martens, H.		850	52	
33	Heeson, M.	Bombt., C-89, R. Artillery.	854	52	
34	Smyth, T.	Private, 107th Regiment.	858	52	
35	Monks, W.	Lance-Corpl., 102nd Regt.	882	50	
36	Shoubh Bhushan Chatterjee.		819	50	
37	Dwyer, J.	Private, 2-12th Regiment.	817	50	
38	Quincey, J.	Private, 102nd Regiment.	785	48	
39	Majkumar Mahabhar.		770	47	
40	Kocley, W.	Corporal, 102nd Regiment.	759	46	
41	Mir Mohammed Zamil Hasan.		718	46	
42	Gerraghty, T.	Private, 41st Regiment.	702	45	
43	McGregor, D.	Bombt., 2-25, R. Artillery.	687	43	

No.	Name	Rank and Corps, and when absorbed.	Marks gained	Percent	Remarks
46	Power, J.	Corporal, 8th Regiment.	40		
47	Byrnes, J.	Gunner, G-F, R. H. Arty.	37		
48	Hannay, F.	Corporal, E-16, R. Artillery	365.34		
49	Banahar Nath,				
(Full Marks, [redacted])					
Sub-Overseers, (Military)					
50	Kirpal Singh,	Sowar, 11th Regt, B C,	353.15		
51	Dharam Singh,	Sowar, 11th Regt, B C,	343.15		
Sub-Overseers, (Civil)					
1	Sri Ram,	Kinnowa,	1369.76		Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering, Surveying
2	Firhat Lal (1),	Roorki,	1102.74		Higher Standard
3	Jwala Prasad,	Meerut,	1140.71		Higher Standard. Prizes for Drawing
4	Murti Dhar,	Deoband,	1092.69		
5	Jagmohan Lal,	Sikandarabad,	1092.69		
6	Lekh Rai,	Saharanpur,	1081.68		Higher Standard
7	Manmohan Das (1),	Anupshahr,	1060.67		
8	[redacted] Prasad,	Majhabad,	1005.69		
9	Jagan Nath,	Bhapes,	945.69		
10	Kara [redacted],	Bhapes,	927.68		
11	Ram Prasad,	Sikandarabad,	765.49		
12	Kanwar Sen,	Dyoor,	743.49		
13	Mahabab Khan,	Dankaur,	712.43		
14	Hardeo Lal,	Sikandarabad,	698.44		
15	Umaro Singh (1),	Saharanpur,	632.43		
16	Ahmad Ali,	Meerut,	674.42		
17	Kimr-ud-din,	Meerut,	665.42		
18	Pyari Lal,	Sikandarabad,	661.41		
19	Nihal Singh,	Jagadhri,	643.40		
20	Gulab Chand,	Najibabad,	643.40		
21	Umar Khan,	Meerut,	641.40		
22	Lachman Das,	Kapilthah,	632.40		
23	[redacted] Ismail				
24	Khan,	Meerut,	575.39		
25	Muhammad Hassan,		570.36		
26	[redacted] [redacted],	Moradabad,			
27	Ilahi Lal,	Anupshahr,			
28	Chotu Singh,	Sikandarabad,			
29	Bansi Ram,	Dehra,			
30	[redacted] An,	Meerut,			
(Full Marks, 3000)					
1	Ram Kishan,	Dehra,	639.64		Qualified as 3rd Class Sub-Overseers by Special Examination in the middle of the [redacted]
2	Nand Lal Hussain,	Mangalore,	627.61		
3	Isht Prasad,	Moradabad			
4	Bhawan Prasad,	Chatter,	585.61		

1888.

No.	Name.	Rank and Corps, and where obtained.	Age	Remarks.	
5	Madoho Ram,	Donkaur,	568 87	Qualified as 3rd Class Sub-Overseer by Special Examination in the middle of the Season.	
6	Biri Kishan Das,	Faridabad,	547 55		
7	Wirtyan Das (2),	Gujrat,	540 54		
8	Ganga Sahay (1),	Bikandrabad,	538 54		
9	Berkat Ullah Khan,	Bahadurpur,	528 53		
10	Banwar Lal,	Jalidabad,	531 53		
11	Uned Singh,	Gangoh,	517 52		
12	Abdul Hamid,	Deoband,	510 51		
13	AMM Hamid,	Hapur,	509 51		
14	Muhammad Sadekhab,	Moradabad,	505 51		
15	Kandoo Lal,	Gangoh,	487 49		
16	Sukha Nand,	Gangoh,	483 48		
17	Bali Chand,	Boorkee,	481 48		
18	Ganga Sahay (2),	Bikandrabad,	477 48		
19	Chota Lal,	Bijnore,	467 48		
20	Walla Muhammad,	Fyzabad,	459 48		
Native Class					
(Full Marks, 250).					
1	Mahomed Baksh,	Misson,	252 68		
2	Ram Prasad,	Carpenter,	181 53		

1870.

EUROPEAN CLASS.

(Full Marks, 5100).

1	Greenwood, C,	St. Xavier's Col,	2016 65	Higher Standard India Prize of Rs 1,000 Col Macleagan's Prize for Physical Science
2	Benson, C E D,	Capt., 67th F M. Infantry,	2000	Higher Standard Government Prize of Rs 1,000 Thomson Gold Medal for best Design. Prize for Drawing
3	Cox, H. R. LeM,	Lieut., 6th Royal Regiment,	1944 63	Higher Standard Col. Medley's Prize for Civil Engineering
4	Slater, J S,	By Cotton School, Seale,	1849 60	Higher Standard Cantley Gold Medal for Mathematics
5	Wootmann, J, & A,	Durveton College, Calcutta,	1725 56	
6	Leopold, H. J,	Switzerland,		
7	Martin, G W,	Engage, 89th Con. Bangum,	1694 54	Special Prize for Photography, 1862.
8	Lilley, A R,	La Martiniere, Lucknow,	1560 50	
9	Belle, J T,	La Martiniere, Lucknow,	1556 50	
10	Rishi Lal,	St. John's College, Agre,	1540 50	Bel
11	Parold, A,	St. Peter's College, Agre,	1531 49	General Medal
12	Briypat Ray,	St. John's College, Agre,	1483 48	
13	O'Callaghan, W J,	Lieut., 1-11th Regiment,	1463 47	
14	Parnanah, H,	St. Peter's College, Agre,	1460 47	
15	Told Rian,	Dahli College,	1264 43	

1870.

No.	Name	Rank and Corps, and where obtained.	Age	Prize
(Full Marks, [redacted])				
1	Taylor, W.	Private, [redacted] Regiment, ..	72	Higher [redacted] Prize
2	Topple, E. J.	Lance-Corpl, 104th Regt.,	1050 76	General Merit and Surveying Standard Prizes for Mathematics and Civil Engi- neering
	Griffin, T.	M. Peter's College, Agre, ..	1050 76	Higher Standard.
	Tyner, J.	Barrack Sergt., Untd. Lst.	1050 76	Higher Standard.
	Harvey, J. R.	Private, 4th Hussars, ..	1109 67	Higher [redacted] Qualified in Photography.
3	Hotchkiss, E.	Lance-Corpl, 1-7th Regt.,	1000 66	Higher Standard Prize for Physical Science.
7	Forward, G.	Corporal, 3-35th Regiment,	1000 66	
8	Dempsey, E.	Private, 4th Hussars, ..	1074 55	Higher Standard.
9	Keane, E.	Lance-Corporal, 1-4th Regt.,	1057 64	
10	Rayton, G.	Corporal, F-10, R. Artillery,	1000 66	
	Thorpe, G. J.,	..		
11	Lynch, J.	Private, 100th Regiment, ..	1000 66	Higher Standard. Qualified in Photography
12	McIntosh, E.	Lance-Corpl, 3-35th Regt.,	1000 66	Higher Standard.
13	Woodville, H.	Corporal, 4th Hussars, ..	1000 66	Higher Standard Prize for Drawing Special Prize for Photography.
14	Boughton, J.	Sergt Major, 3-35th R. Art.	990 61	Higher Standard.
15	Williams, T.	Booby, 2-5, R. Artillery, ..	985 50	
16	Baylis, E.	Lance-Corpl, 31st Hussars,	945 57	
17	Douglas, J.	Pte, 3rd Bn, R. Artillery,	940 57	
18	Cassidy, W.	Gunner, 5-33, Royal Art.	940 57	
19	Gokal Prasad,	..	880 56	
20	Douglas, G.	Sergeant, 30th Regiment, ..	990 56	
21	Crawshaw, E.	Lance-Corpl, 2-4th Hussars,	915 56	
22	Gee, J.	Lance-Corpl, 3-35th Regt.,	900 56	
23	Turner, W. R.	Private, 1-5th Regiment, ..	861 53	
24	Freenath Ghose,	..	889 53	
25	Harvey, J.	Gunner, A-15, Royal Art.	861 53	
26	Marrison, A.	Booby, 3-34 R. Art.	940 57	
27	Gard, T.	Private, 37th Regiment, ..	889 51	
28	Groom, T.	Lance-Corpl, 25th Regt., ..	883 50	
29	Tikam Das,	..	805 49	
30	Dakhina Manjan Ma- kerjee,	..	804 49	
	Kay, G.	Sergeant, 30th Regiment, ..	785 45	
	Stanger, E.	Private, 1-5th Regiment, ..	768 47	
	Abdul Sattar,	..	767 48	
	Hanley, M.	Lance-Sergt, 37th Regt., ..	760 48	
	Hudson, J.	Sq. Cotton School, Simla,	743 45	
	Farrell, F.	Private, 100th Regiment, ..	743 45	
	Monck, V. F.	Pte, 3rd Bn, R. Artillery,	700 44	Qualified in Photography.
	Behendranath Mahe- jee,	..	718 44	
	Parmanandi Das,	..	717 43	

1870

No.	Name.	Rank and Corps, and where attached.	Mark gained.	Percent.
42	Dodd, A.,	.. Lance-Sergeant, 1-6th Regt., ..	1000	100
43	Azuroath,	..	1000	100
44	Meekins, F.,	.. Lance-Corpl, 27th Regt.,	1000	100
45	Derumson, B.,	.. Lance-Sergeant, 21st Hussars,	1000	100
46	Kelly, J.	.. Gunner, E-16, Royal Arty.	1000	100
47	Michoudier Bards,	..	1000	100
48	Tolna, T. H.,	.. Sergeant, 25th Regiment,	975	97
49	Fitzgerald, G.,	.. Lance-Corpl, 26th Regt.,	1000	100
50	Fateh Hussain,	..	1000	100
51	Jolly, W.,	.. Private, 1-6th Regt.,	1000	100
52	Dewahy, F.,	.. Lieut.-Corpl, 27th Regt.,	620	62
53	Tahil Ram,	..	1000	100
54	Cassidon, H.,	.. Lieut.-Corpl, 27th Regt.,	607	60
55	King, J.,	..	585	58
56	Larry, W.,	.. Private, 21st Hussars,	1000	100
57	Barton, R.,	.. Gunner, E-16, R. Arty.,	511	51
58	Craig, J.,	.. Lieut.-Corpl, 1-7th Regt.,	425	42
59	Malawa Ram,	..	409	40
60	Hurren, J.,	.. Private, 27th Regt.,	1000	100
61	Chuan Lal,	..	479	47
62	Gouri Shankar,	..	1000	100

LOWER SUBORDINATE CLASS.

(Full Marks, 1600).

Sub-Officers, (Military)

13	Bansawa Singh,	.. Hote Duffadar, 12th B. C.,	601	60
14	Gobind Singh,	.. Sepoy, 27th P. N. I.,	1000	100
15	Amrit Ali Khan,	.. Sepoy, 10th P. N. I.,	1000	100
16	Hussain Khan,	.. Sowar, 6th B. C.,	1000	100
17	Hammud Hussain,	.. Sowar, 6th B. C.,	401	40
18	Kala Singh,	.. Sowar, 5th B. C.,	1000	100
19	Sham Singh,	.. Sepoy, 27th P. N. I.,	390	39
20	Balwant Singh,	.. Sepoy, 20th P. N. I.,	1000	100
21	Ganesh Singh,	.. Sepoy, 20th P. N. I.,	344	34

Sub-Officers, (Civil).

1	Amrit Ray,	.. Sahitragar,	1000	100
2	Kirpa Ram,	.. Lashkara,	1000	100
3	Shankar Ali,	.. Meaur,	1000	100
4	Abdul Aziz,	.. Ambabta,	54	5
5	Mangal Sen,	.. Ambabta,	654	65
6	Wajid Ali,	.. Bajoor,	1000	100
7	Hazari Lal,	.. Najibabad,	50	5
8	Gulam Inam,	.. Sahitragar,	740	74
9	Wazir Chand,	.. Gurjat,	1000	100
10	Rahim Mahesh (2),	.. Shikhabad,	717	71
11	Sehay,	.. Sikandarabad,	710	71
12	Mathab Singh,	.. Bocklee,	44	4
13	Ram Lal,	.. Gwaha,	42	4

Higher Mark, for
 Civil Merit, Engineering.
 Higher Standard.

1870.

No.	Name.	Rank and Corps, and where educated.	Age at Ex.	Prize.	Remarks.
18	Roshan Lal,	.. Delhi,	..	844.38	
20	Salik Ram,	.. Najibabad,	..	863.35	
25	Gobind Prasad,	.. Shahdabad,	..	871.39	
26	Rajdeo Sahay,	.. Bijnor,	..	126.12	
<i>Sub-Surveyors</i>					
1	Fateh Chand,	.. Rooskee,	..	1102.63	Higher Standard. Prize for Surveying.
2	Sohan Lal,	.. Meerut,	..	1086.66	Higher Standard.
3	Jbandt Singh,	.. Phulodah,	..	652.53	
4	Choni Lal,	.. Agra Normal School,	..	605.60	
5	Abdul Ali,	.. Meerut,	..	731.45	
6	Ragbar Dayal,	.. Najibabad,	..	771.46	
7	Rahmet Ali,	.. Deoband,	..	743.46	
8	Abdul Ahin,	.. Rooskee,	..	737.46	
9	Ibrahim Khan,	.. Rooskee,	..	720.46	
10	Chamman Lal,	.. Saharsanagar,	..	632.49	
11	Chotam Das,	.. Deoband,	..	673.49	
<i>Artificers and Draftsmen.</i>					
1	Hakim Ah,	.. Amritsar,	..	677.61	Higher Standard. Prize for Drawing.
2	Hamed Ali,	.. Meerut,	..	668.50	Higher Standard. Prize for Drawing.
3	Nasir Ullah,	.. Bijnor,	..	641.55	
4	Jhanda Mal,	.. Gangoh,	..	658.53	
5	Ganga Sahay,	.. Harpur,	..	641.53	
6	Firhad Lal,	.. Najibabad,	..	726.46	
7	Udho Bhan,	.. Gurdaspur,	..	694.45	
8	Bhan Lal,	.. Meerut,	..	676.45	
9	Rahim Bakhsh (1),	.. Shahdabad,	..	639.41	
<i>Minor Class.</i>					
<i>(Full Marks, 1000)</i>					
1	Karim Bakhsh,	.. Carpenter,	..	210.60	

1871.

<i>CLASSE.</i>					
<i>(Full Marks, 1000)</i>					
1	Gueres, F. L.,	.. Lieut., Royal Artillery,	..	2567	Higher Standard Government. Prize of Rs. 1,000. Canby Gold Medal for Mathematics. Colonel Medley's Prize for Engineering. Col. Macdonald's Prize for Physical Science.
2	Baller, C. E.,	.. Lieut., Royal Artillery,	..	2476.78	Higher Standard. Prize of Rs. 1,000 in Photography.

1871.

No.	Name.	Rank and Corps, and where educated.	2nd Rank	1st Rank	Remarks.	
3	Scottland, J. F.,	Rev. Madhock's, Mussoorie.	2431	77	Higher Standard. Council of India Prize of Rs. 1,000. Prize for Drawing. Qualified in Photography.	
4	Rison, J.,	By Cotton School, Seale.	2358	72	Higher Standard.	
5	Scott, E. W. P.,	England.	2041	65	Higher Standard. Thompson Gold Medal for best Design.	
6	Wingate, T. O.,	Lancs, 31st Regiment.	3022	64	Higher Standard. Government Prize of Rs. 1,000.	
7	Monica, A.,	Mussoorie School.	3021	64	Qualified in Photography.	
8	Hagley, J. R.,	Mussoorie School.	1993	53	Higher Standard.	
9	Murray, E.,	La Martinière, Lucknow.	1990	53		
10	Bhagat Singh,	Govt. College, Lahore.	1982	50	Rai Kumbha Lal's Prize of Rs. 50.	
11	Colquhoun, A.,	Germany.	1822	33	Failed	
12	Brown, W. E.,	By Cotton School, Seale.	1771	56		
13	Lackstadt, H.,	Mussoorie School.	1711	54		
14	Lemond, W. A.,	England.	1641	52		
15	Rhemith, S. J.,	Government College, Delhi.	1540	53		
16	Roman, M. J.,	St. Xavier's Col., Calcutta.	1517	51		
17	Baxter, B.,	La Martinière, Lucknow.	1574	50		
18	Douglas, E.,	Mussoorie School.	1573	50		
19	McGowan, C.,	Mussoorie School.	1455	47		
20	Dunn, R.,	Mussoorie School.	1459	46		
UPPER SUBORDINATE.						
(Not Marked.)						
1	Colman, J.,	Private, 2-60th Rifles.	1249	76	Higher Standard. Prizes for General Merit and Physical Science.	
2	Doyle, M. (I),	Private, 31st Hussars.	1230	72	Higher Standard. Prize for Civil Engineering.	
3	Calvert, L.,	St. Peter's College, Agre.	1214	74	Higher Standard. Prize for Mathematics.	
4	Pagan, W.,	Private, 38th Regiment.	1128	65	Higher Standard. Prizes for Drawing.	
	Kedarnath Banerjee,		1104	67	Higher Standard.	
	Murphy, J.,	St. Peter's College, Agre.	1059	64		
	St. Aubyn, E.,	Gunner, C-16, Royal Art.	1032	63	Higher Standard. Prizes for Surveying and Photography.	
8	Marr, W.,	Colon-Sergeant, 2-10th Regt.	1014	61	Failed	
9	Williams, W. R.,	Lance-Corps, 57th Regt.	957	59		
10	Ghulian Hassan,		944	58		
11	Kennedath Mukarjee,		935	58		
12	Brandon, A.,	Sergeant, 31st Hussars.	955	58		
13	Clancy, L.,	Private, 106th Regiment.	945	57		
14	Todd, J.,	Lance-Corps, 98th Regt.	922	56		
15	Lachmi Chand,		914	55		
16	Pope, G.,	Corporal, A-D, R. H. Art.	912	55		
17	Highway, E.,	Private, 31st Hussars.	909	55		
18	Robinson, J.,	Lance-Corps, 3-36th Regt.	906	55		
19	Douglas, W. R.,	Corporal, B-35, R. Artillery.	891	54		
20	Thompson, T.	Lance-Sergeant, 31st Hussars.	883	53		

1871.

No	Name.	Rank and Corps, and where classed.	Height Weight Age	Remarks.
21	Pamnah, A. A.,	St. Peter's College, Agre,	577 58	
22	Kirpa Ram,	"	550 52	
23	Talbot, H.,	Lance-Corpl., 35th Regt.,	549 51	
24	Aparna Krishna Maier,	"	545 51	
25	Dhan Singh,	"	543 51	
26	Montague, C.,	Corporal, 95th Regiment,	543 51	
27	Clarke, C. J.,	Private, 95th Regiment,	533 50	
28	Armsworth, C.,	Private, 2-60th Rifles,	536 50	
29	Sureswar Binka,	"	525 50	
30	Williams, J.,	Private, 2-15th Regiment,	534 50	
31	Doyle, M. (3),	Lance-Corpl., 1-14th Regt.,	519 50	
32	Devine, J.,	Lance-Corpl., 2-60th Rifles,	515 50	
33	Harrington, B. R.,	Private, 36th Regiment,	515 49	
34	Newitt, R. J.,	Lance-Corpl., 38th Regt.,	514 49	
35	Byrne, W.,	Private, 1-2nd Regiment,	514 49	
36	O'Hagan, C.,	Gunner, 4-3d, Royal Arty,	508 49	
37	Edwards, E.,	Lance Corpl., 1-6th Regt.,	799 48	
38	Lewis, R.,	Lawrence Military Asylum,	787 48	
39	McLeod, H.,	Lawrence Military Asylum,	785 48	
40	Blanchford, J.,	Private, 2-15th Regiment,	771 47	Qualified in Photography
41	Douglas, W.,	Driver, B-F, R. H. Arty.,	758 46	
42	Brownless, J.,	Lance-Corpl., 30th Hussars,	759 45	
43	Austin, G.,	Sergt., U. L., Barrack Dept.,	737 44	
44	James, B.,	Sergeant, 11th Hussars,	728 44	
45	Faddock, G.,	Driver, B-F, R. H. Arty.,	716 43	
46	Pethard, J.,	Private, 1-6th Regiment,	710 43	
47	Walsh, M.,	Honabr, D-F, R. H. Arty.,	707 42	
48	Murtha, B.,	Corporal, 66th Regiment,	701 42	
49	Craupson, J.,	Corporal, 66th Regiment,	696 42	
50	Kali Charn,	"	693 42	
51	Manning, D.,	Lance-Corpl., 2-35th Regt.,	691 42	
52	Webster, J.,	La Martinière, Lucknow,	689 42	
53	Dumade, W.,	Private, 32nd Regiment,	673 41	
54	Rank Lal Dahi,	"	680 40	
55	Barber, J.,	Lance-Corpl., 35th Regiment,	651 39	
56	Wrenn, W.,	St. George's, Warrimoo,	609 37	
57	Smith, S.,	Private, 1-5th Regiment,	594 36	
58	Sita Ram,	"	586 35	Failed
59	Lovegrove, D.,	Bomb, E-A, R. H. Arty.,	511 31	
60	McMahon, J.,	Gunner, 3-24, R. Arty.,	507 31	
61	Cordeau, H.,	Sergt., 11th Hussars,	474 30	
[REDACTED]				
[REDACTED] Overseers, (Military)				
[REDACTED] (Full Marks, [REDACTED])				
1	Bac Khan,	Sowar, 12th B. C.,	583 50	
2	Bach Singh,	Sepoy, 24th P. N. I.,	479 30	
3	Shambho Daa,	Sepoy, 27th P. N. I.,	449 28	
4	Sardyan Singh,	Sowar, 2nd C. I. H.,	439 27	
5	Murajan Daa,	Sowar, 12th B. C.,	430 26	
6	Danbat Singh,	Sepoy, 26th N. I.,	409 25	

1871.

No.	Name.	Rank and Corps, and where obtained.	Age	Remarks.
7	Atar Singh,	.. Bowser, 12th B. C.,	403 25	
8	Ali Jan,	.. Lance-Duffadar, 6th B. C.,	389 94	
9	Slypader Khan,	.. Duffadar, 6th B. C.,	379 24	
10	Mahmud Hussain,	.. Duffadar, 2nd B. C.,	377 94	
<i>Sub-Overseers, (Civil).</i>				
1	Seahar Lal,	.. Kheda,	1083 68	Higher Standard Price for General Merit.
2	Barbat Ali,	.. Delhi,	977 41	} Higher Standard
3	Khayr Singh,	.. Sikandarabad,	914 87	
4	Fateh Singh,	.. Raipur,	878 58	
5	Umrao Singh,	.. Dandah,	818 51	
6	Manohar Hussain,	.. Jagadhri,	799 86	
7	Muhammad Hussain,	.. Sikandarabad,	780 40	
8	Gobas Lal,	.. Hissar,	788 47	
9	Manjha Khan,	.. Jagadhri,	747 65	
10	Kulwant Ray,	.. Hissar,	710 44	
11	Mangal Sen,	.. Dabul,	684 45	
12	Guchambharnath,	.. Faridabad,	653 41	
13	Kala Hakhah,	.. Moudabad,	605 08	
14	Ranjit Singh,	.. Meerut,	598 87	
15	Motira Prasad,	.. Muckashah,	586 25	
<i>Sub-Surveyors</i>				
1	Ahmad Beg (I),	.. Dytan,	946 88	Higher Standard Price for Surveying
2	Ahmad Beg (II),	.. Meerut,	859 48	
3	Fyral Hussain,	.. Gohannah,	830 83	
4	Kadir Beg,	.. Meerut,	820 61	
5	Aster Ali,	.. Nihor,	798 60	
6	Hardwar Lal,	.. Saharanpur,	744 47	
7	Manohar Lal,	.. Sikandarabad,	743 68	
8	Bangwan Das,	.. Saharanpur,	740 48	
9	Ahmad Abbis,	.. Sikandarabad,	736 48	
10	Bahul Ray,	.. Shahabad,	730 48	
11	Fateh Muhammad,	.. Thabun,	728 45	
<i>Estimators and Draftsmen.</i>				
1	Sadallah,	.. Jaggan,	1075 57	Higher Standard Price for Mathematics.
2	Balmukund,	.. Sikandarabad,	898 43	Higher Standard Price for Civil Engineering
3	Muhammad Abdolish,	.. Hissar,	847 88	Higher Standard Price for Drawing
4	Raghunath Sahay,	.. Fahirpur,	838 56	
5	Kalm Ali,	.. Moudabad,	836 54	
6	Ganpat Ray,	.. Kheda,	810 58	
7	Ganga Ram,	.. Gungah,	801 57	
8	Pirsh Singh,	.. Soorhee,	688 61	
9	Nanda Ram,	.. Jaggan,	789 48	
10	Mohd Hussain,	.. Sikandarabad,	754 47	
11	Rishu-ud-din,	.. Meerut,	686 48	
12	Nand Hussain,	.. Lucknow College,	635 40	

1871.

No.	Name.	Rank and Corps, and value obtained.	Mark obtained.	Remarks.
Miscellaneous Class.				
(Full Marks, 350).				
1	Isaiah Singh,	.. Mason,	221 68	Passed as Hd Artisan, Jan '71.
2	Hardwin Lal,	.. Carpenter,	248 71	" " " April "
3	Muhammad Hassan,	.. Syrian Tile Maker,	194 65	" " " June "
4	Abdullah,	.. Blacksmith,	242 80	" " " Sept. "
5	Ayaz Ali,	.. Painter and Carpenter,	200 57	" " " " "

1872.

ENGINEERING CLASS.				
(Full Marks, 3250)				
1	Willcocks, W,	.. Maseone School,	2304 60	Higher Standard Council of India Prize of Rs 1,000 Thomson Gold Medal for best Design Centley Gold Medal for Mathematics, Col Medley's Prize for Civil Engineering Col MacLagan's Prize for Physical Science, Prize for Drawing
2	Hurst, W P V,	.. Maseone School,	2457 70	Higher Standard
3	Bellairs, G M,	.. Lieut, 107th Regiment,	2349 73	Higher Standard Government Prize of Rs. 1,000
4	Field, G. M. R,	.. England,	2218 70	Higher Standard Prize for Photography, 1871.
5	Ward, A. R,	.. Lieut, 10th M. Infantry,	3001 44	Higher Standard Government Prize of Rs. 1,000 Qualified in Photography
6	Bisada Prashad Bora,	Cathal Mission College, Calcutta,	1621 60	Higher Standard The "Thomson Prize" of Rs. 250.
7	Green, J R,	.. St. George's Col. Mysore,	1814 53	Higher Standard.
8	Slater, A. W,	.. Bp Cotton School, Sunda,	1786 57	
9	Kanaka, G C,	.. England,	1700 54	Qualified in Photography.
10	Davies, J D,	.. Bath Proprietary School,	1697 54	
11	Morgan, R G,	.. Lieut, 5th Native Infantry,	1635 48	
12	Bailey, R J,	.. Maseone School,	1634 48	
13	Wyatt, J C,	.. Dorraton College, Calcutta,	1618 48	
14	Macrae, G F,	.. Bp Cotton School, Sunda,	1283 41	Failed
UPPER SUBORDINATE CLASS.				
(Full Marks, 1650)				
1	Shaw, G,	.. Pay-Mr. Sergt., 58th Regt.,	1236 55	Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering, Surveying, Drawing, Physical Science, and Photography.
2	Greer, W J,	..	1223 55	Higher Standard. Special Extra General Merit Prize. Qualified in Photography.

TRUNK LIST.

No.	Name	Rank and Corps, and where educated.	Age	Grade	Remarks
2	Thompson, M. R.	St. Peter's College, Agre.	1128	65	Higher Standard.
4	Horinath Chakravarti.	..	1121	65	
5	Cox, J.	.. Lance-Corpl, 1-14th Regt.	1076	65	Higher Standard. Qualified
6	Durgah Das Datta.	..	1070	65	Higher Standard. in Photography.
7	Westwood, W. G.	.. Private, 65th Regiment.	1068	64	Higher Standard. Qualified in Photography.
8	Low, J.	.. Sergeant, 32nd Regiment.	1048	63	Higher Standard.
9	Rand Gupta,	.. Lahore Government College.	1036	63	
10	Peria, A.	.. Sergeant, 4th Hussars.	1014	61	Higher Standard. Qualified
11	McCarthy, J.	.. St. Michael's Nily Asylum.	1019	61	in Photography.
12	Percy, F. J.	.. Private, 26th Regiment.	988	60	2nd Prize for Photography.
13	Thomas, L.	.. Sergeant, 2d Department.	989	60	
14	Tuck, J.	.. Cr Sergeant, 65th Regt.	972	59	2nd Prize for Photography.
15	Owen, J.	.. Sergeant, 65th Regiment.	968	58	
16	Badi Dda.	..	949	58	2nd Prize for Photography.
17	Fawcett, J.	.. Qr-Mr Sergt, G-10, R.A.	948	57	
18	Carlton, H.	.. Lee Corpl, 37th Regiment.	940	57	2nd Prize for Photography.
19	Dalipa Basha.	..	930	40	
20	Hammill, G.	.. St. Michael's Nily Asylum.	899	54	2nd Prize for Photography.
21	Callaghan, J.	.. St. Peter's College, Agre.	897	54	
22	Shanku Abdul Majid.	..	883	54	2nd Prize for Photography.
23	Daker, O.	.. Lance-Corpl 1-14th Regt.	876	53	
24	Smith, J.	.. Bombardier, F-19, R. Arty.	861	52	2nd Prize for Photography.
25	Dumath.	..	850	52	
26	Booley, G.	.. Lance-Corpl, 1st Regiment.	845	51	2nd Prize for Photography.
27	Cheney, G.	.. Private, 66th Regiment.	834	51	
28	McLarkin, J.	.. Gunner, A-A, R. H. Arty.	817	49	2nd Prize for Photography.
29	Brown, J.	.. Private, 66th Regiment.	803	49	
30	Marshall, B.	.. Lawrence Military Asylum.	801	49	2nd Prize for Photography.
31	Carrou, H.	.. St. Peter's College, Agre.	800	48	
32	Ananda Kanta Gupta.	..	800	48	2nd Prize for Photography.
33	Durgapada Ghoshal.	..	798	48	
34	McIntosh, F.	.. Private, 107th Regiment.	777	47	2nd Prize for Photography.
35	Hall, A.	.. Lawrence Military Asylum.	776	47	
36	Magee, D.	.. Bombardier, B-F, R. H. A.	771	47	2nd Prize for Photography.
37	Chen, J.	.. Trumpeter, Royal Artillery.	754	46	
38	Heurikly, J.	.. Private, 65th Regiment.	747	46	2nd Prize for Photography.
39	Baktawar Lal.	..	737	45	
40	Walters, J.	.. Sergeant, 1-14th Regiment.	734	44	2nd Prize for Photography.
41	Bay, J.	.. Gunner, G-14, Royal Arty.	731	44	
42	Hasson, M.	.. Private, 36th Regiment.	730	44	2nd Prize for Photography.
43	Murphy, M.	.. Sergeant, 107th Regiment.	714	43	
44	Farmerwan Dda.	..	704	43	2nd Prize for Photography.
45	Jiraj Singh.	..	703	42	
46	Ghamandi Lal.	..	700	42	2nd Prize for Photography.
47	Babro.	..	677	41	
48	Sri Krishnadas Kadda.	..	671	41	2nd Prize for Photography.
49	Jagat Sandha Sen.	..	669	41	
50	Madama, R.	.. Corporal, D-15, Royal Arty.	651	39	2nd Prize for Photography.
51	Singh Ram.	..	639	38	
52	Lambert, H.	.. Gunner, A-16, Royal Arty.	630	38	2nd Prize for Photography.
53	Hingdon, E.	.. Bomb, F-8, Royal Arty.	627	38	

1872.

No.	Name.	Rank and Corps, and where educated.	Mark obtained.	Result.
LOWER CLASS				
Mark, 1860.				
Sub-Officers, (Military)				
1	Tarab Ali,	..Sowar, C,	581 30	
2	Zamin Ali,	..Sowar, B C,	582 35	
3	Amjad Ali,	..Sowar, B C,	556 35	
4	Ram Das,	..Sowar, 12th B C,	587 34	
5	Morad Ali Khan,	..Sowar, 12th B C,	533 39	
6	Amir Mirza,	..Sowar, 12th B C,	585 38	
7	Gyis-ud-din,	Bapoy, K. I.,	671 30	
Sub-Officers, (Civil).				
1	Choti Lal (S),	Bulandshahr,	1067 67	Higher Standard.
2	Munir-ud-din,	Meerut,	1081 64	
3	.. Singh,	Lahore,	1015 43	Higher Standard. Price for Civil Engineering.
4	Raghu Ram,	Lahore,	904 62	Higher ..
5	Lachma Das,	Unao,	941 55	
6	Dost Muhammad,	Saharanpur,	912 57	
7	Muhammad Shah (S),	Meerut,	901 56	Price ..
8	Unad Singh,	Bijnor,	987 55	
9	Shankar Lal,	Roorkee,	987 55	
10	Umar Datta,	Unbala,	989 54	
11	Chiranj Lal,	Gangoh,	950 53	
12	Nalla Ram,	Khanna,	941 53	
13	Prasad Mal,	Jafirwal,	939 52	
14	.. Haddi,	Machwara,	911 51	
15	Durga Prasad,	Bijnor,	798 50	
16	Muhammad Shah (S),	Meerut,	778 49	
17	Imam-ud-din,	Roorkee,	754 47	
18	Kanwar Sen,	Unbala,	753 47	
19	Shole Singh,	Bijnor,	736 45	
20	Shib Lal,	Muzaffarnagar,	720 43	
21	Harkish,	Roorkee,	707 42	
22	Jagannath,	Hapur,	705 44	
23	Sury-ud-din,	Bijnor,	611 38	
24	Abdul Hak,	Bijnor,	585 37	
25	Shim Lal,	Meerut,	583 34	
26	Bashir Ali,	Bijnor,	496 31	Failed.
Sub-Surveyors				
1	Harchet Singh,	Bulandshahr,	1030 64	Higher Standard. Price for Surveying.
2	Kaam Ali,	Diba,	1029 64	Higher Standard.
3	Abdul Gaffar (S),	Nagina,	947 59	
4	Abdul Gaffar (S),	Hapur,	905 55	
5	Badr Parkash,	Saharanpur,	872 55	
6	Sobha Singh,	Khanna,	857 54	
7	Khushad Ali,	Bijnor,	838 53	
8	Kewal Kishan,	Unbala,	831 53	
9	Mahammad Ali (S),	Meerut,	794 50	
10	Salamat Ray,	Saharanpur,	790 49	

1872.

No.	Name.	Rank and Corps, and where educated.	Age	Remarks.
11	Masrah Ali,	.. Bengal,	758 47	
12	Bhola Prasad,	.. ..	733 45	
13	Ganga Ram,	.. Meerut,	649 41	
14	Phol Singh,	.. Meerut,	588 37	
<i>Estimators and Draftsmen.</i>				
1	Chod Lal (T),	.. Engineer,	1215 76	Higher Standard. Prizes for General Merit and Drawing.
2	Abdul Gaffar (S),	.. Michowee,	1005 22	Higher Standard.
3	Ahmad Hussain,	.. Chandani,	945 60	
4	Muhammad Ali,	.. Umballa,		
5	Bowahd Ram,	.. Lahore,		
<i>Miscellaneous Class.</i>				
<i>(Full Marks, 300).</i>				
1	Ghulam Muhammad,	.. Mason,	305 59	Praised as Hand Artificer.
2	Rander Singh,	.. Mason,	185 59	
3	Ghaffar Muhammad,	.. Mason,	171 48	

1873.

ENGINEER CLASS.

(Full Marks, 2150).

1	Havins, B. W. L.,	Bp. Cotton School, Sialk,	2612 90	Higher Standard. General of India Prize of Rs. 1,000. Col. Medley's Prize for Civil Engineering Prize for Drawing.
2	Graves, H. A.,	.. Lieut, Royal Artillery,	2462 78	Higher Standard. Government Prize of Rs. 1,000. Gold Medal for Math. Prize in Photography.
3	Ganga Ram,	.. Lahore Government College,	2000 72	Higher Standard. "The reason Prize" of Rs. 250. Qualified in Photography.
4	Harrie, O.,	.. Basel, Switzerland,	2370 72	
5	Huntress, S.,	.. La Martiniere, Lucknow,	2091 66	Higher Standard.
6	Farnat, E.,	.. Bp. Cotton School, Sialk,	2053 65	
7	Fox, F. G.,	.. St. Paul's, Catterick, Yorkshire,	1970 48	Higher Standard. Col. Macdonald's Prize for Physical Science.
8	Higgins, A. F.,	.. Rev. H. Sells, Munrovia,	1900 62	Higher Standard.
9	Corrigan, E. A. L.,	.. La Martiniere, Lucknow,	1852 62	
10	Jones, A. J. F., Lieut,	England and Rev. H. Sells,	1816 61	Higher Standard. Thomson Gold Medal for best Design.
11	Kenny, E. E.,	.. Mysore,		
12	Balmukund,	.. Lieut, 56th Regiment,	1671 40	Qualified in Photography.
13		.. Lahore Government College,	1885 59	Has Khusha Lal's Prize of Rs. 50.
14	Lamb, G. F.,	.. St. Paul's, Stony Stratford,	1831 58	
15	Freemath Ghosh,	.. Burampur College,	1709 54	
16	Grant, A.,	.. Scotland and Rev. H. Sells, Magdalen,	1637 52	

1873.

No.	Name.	Rank and Corps, and where obtained.	Age	Remarks.
16	Biddu Bhannu Bhowm	Pres. College, Calcutta, ..	1582/50	
17	Hogus, J.	Ep. Cotton School, Sumia, ..	1572/50	
18	Parbata Chanan Chak- topadhyay,	Pres. College, Calcutta, ..	1500/48	
UPPER SUBORDINATE CLASS.				
(J. H. Marks, 1873.)				
1	Hey, W.,	Private, 1-5th Regiment, ..	1511/55	Higher Standard. Private for General Merit, Surveying and Drawing Qualified in Photo- graphy
2	McGraw, H.,	Private, 1-11th Regiment, ..	1391/50	Higher Standard. Private for Higher Standard and ..
3	Barndon, F.,	Private, 1-11th Regiment, ..	1174/76	Higher Standard
4	Smith, J.,	Private, 34th Regiment, ..	1140/71	Higher Standard
5	Jay Narayan,	Private, 1-3rd Regiment, ..	1130/73	Qualified in Photography
6	Beitchell, W.,	Ag. Bomber, B.F., R.H.A., ..	1124/73	
7	Robertson, W.,	Lance-Corpl., 15th Hussars, ..	1079/70	
8	Lewis, G.,	Private, 31st Hussars, ..	1077/69	Higher Standard
9	McDowell, A.,	Private, 31st Hussars, ..	1043/68	
10	O'Connor, T.,	Private, 1-11th Regiment, ..	1030/67	
11	Watson, J.,	Gunner, F-16, Royal Art., ..	1020/66	
12	Kirk, D.,	Private, 32nd Regiment, ..	1034/66	Higher Standard. Private Photography.
13	Bell, J.,	Private, 68th Regiment, ..	1019/66	Higher Standard.
14	Barbet, J.,	Private, 68th Regiment, ..	1009/65	
15	Boothford, T.,	Staff Sergeant, 2nd B. A., ..	982/64	Higher Standard. Qualified Photography
16	Lean, H.,	Corporal, 68th Regiment, ..	967/63	Higher Standard. Qualified Photography
17	Brown, J.,	Private, 31st Hussars, ..	961/62	Higher Standard.
18	Campbell, J.,	Private, 31st Hussars, ..	942/61	
19	McCarthy, L.,	Gunner, D-13, Royal Art., ..	933/60	
20	Hardeo Das,	Private, 4th Hussars, ..	919/59	
21	Reid, G.,	Private, 4th Hussars, ..	907/58	
22	Crofton, M. D.,	Private, 2-35th Regiment, ..	893/58	
23	Mahim Chandra	Gupta, ..	890/57	
24	Biddu Boshom Ban- dyopadhyay,	Private, 4th Hussars, ..	873/57	Qualified in Photography.
25	Adamson, J.,	Private, 4th Hussars, ..	864/56	
26	Danlet Ram,	Private, 4th Hussars, ..	860/55	
27	Kundan Lal,	Private, 4th Hussars, ..	850/54	
28	Collier, T.,	Bomber, 1-12, Royal Art., ..	842/53	
29	Bans Gopal,	Private, 4th Hussars, ..	840/52	
30	Brij Behari Lal,	Private, 4th Hussars, ..	830/51	
31	Jogindranath Suresh, Ram Lal Mukhopa- dhyay,	Private, 4th Hussars, ..	827/50	
32	Mahes Chandra Ban- dyopadhyay,	Private, 4th Hussars, ..	823/49	
33	Rand Kishore,	Private, 4th Hussars, ..	813/48	
34	Craig, J.,	Private, 35th Regiment, ..	790/51	
35	Jaggi, I.,	Private, 35th Regiment, ..	780/51	

1873.

No.	Name.	Rank and Corps, and where obtained.	1871	1872	Remarks.
36	Hughes, E.	Corporal, G-8, Royal Arty.	789 51		
38	Betty, A.	Lance-Corpl, 3-19th Regt.	781 80		
39	Behari Lal,	...	766 49		
40	Moore, G.	Gunner, F-36, Royal Arty.	717 48		
41	Bhim Chandee Senha,	...	713 46		
42	Bhims Chetam Zandya- pachya,	...	693 46		
43	Miran Bakshi,	...	660 44		
44	McDonald, J.	Corporal, G-16, Royal Arty.	679 44		
45	Bhroda Chandee Chet- topachya,	...	643 46		
46	Isht Panchal,	...	578 37		
LOWER SUBORDINATE CLASS					
(Full Marks, 1000)					
Sub-Officers, (Military)					
1	Dewi Datta,	Defender, 10th B Co.	1219 70		Higher Standard. Prize for Civil Engineering
2	Khevan Singh,	Sowar, 11th B L.	993 51		
3	Abbas Khan,	Sowar, 19th B L.	768 48		
4	Perkas Ullah Khan,	Sowar, 14th B Co.	796 48		
5	Husain Shah,	Drum-major, 10th B L.	743 46		
6	Sekhatat Hassan,	Sowar, 3rd B Co.	711 44		
7	Chanda Singh,	Sepoy, 4th M L.	591 36		
8	Anant Ram,	Sepoy, 8. and M.	553 35		
9	Sikander Khan,	Sowar, 2nd B Co.	545 36		
10	Omra Singh,	Sowar 11th B L.	381 31		Failed
Sub-Officers, (Civil).					
1	Kashid Ram,	Kachayur,	1148 72		Higher Standard. Prize for General Math.
2	Hemra Singh,	Lahore,	1123 70		
3	Nand Singh,	Ladhiana,	1097 69		
4	Moharuk Beg,	Fatehgarh, Lahore,	1089 68		Higher Standard.
5	Jaggannath,	Krupur,	1067 67		
6	Bakar Hussain (P),	Meerut,	1064 67		
7	Amir Ali,	Rajmargah,	1058 65		Higher Standard. Prize for Surveying.
8	Ram Rosh Pal,	Najafgarh,	983 61		
9	Nisar Ahmad Khan,	Jalalabad,	967 61		Higher Standard
10	Avas Ali,	Meerut,	979 61		
11	Behari Lal,	Phulodah,	954 60		
12	Champur Ray,	Najafgarh,	930 58		
13	Ashraf Hussain,	Meerut,	931 58		
14	Chiranjit Lal,	Noorkee,	914 57		
15	Ramak Singh,	Najafgarh,	903 56		
16	Ram Lal Dhar,	Moradabad,	887 54		
17	Bishamber Dayal,	Lucknow,	867 54		
18	Gubari Lal,	Farukhabad,	849 53		
19	Ganga Sahay,	Meerut,	807 50		
20	Badrava Ram,	Ladhiana,	808 50		
21	Amrit Ray,	Bahawnpur,	770 48		
22	Nand Kishore,	Ambala,	754 47		

1873

No.	Name.	Rank and Corps, and where obtained.	Mark obtained	Percent	Remarks.
	Khan Bahadur Huzar,	.. Munakernagar,	744	47	
	Ashar Ali,	.. Meerut,	738	45	
	Badrin Das,	.. Roorkes,	708	44	
	Sri Ram,	.. Roorkes,	701	44	
	Muhammad Ismail,	.. Baharampur,	680	43	
	Chajra Mal,	.. Ambala,	688	43	
	Shams-ud-din,	.. Roorkes,	666	42	
	Taki Ram,	.. Baharampur,	639	39	
	Yusuf Ali,	.. Nihor,	620	39	
	Babar Hussain (S),	.. Bijnor,	585	37	
	Shir Dhal,	.. Roorkes,	561	35	Failed
	Jauki Puresh,	.. Benares,	328	14	
<i>Nagri Class.</i>					
1	Badrin Das,	.. Farukhabad,	574	45	
2	Rander Singh,	.. Meerut,	521	51	
3	Duck Nandan,	.. Munakernagar,	600	41	
4	Tulsi Ram (S),	.. Roorkes,	655	41	
5	Rishi Lal,	.. Roorkes,	585	37	
<i>Estimators and Draftsmen</i>					
1	Fazl Muhammad,	.. Lucknow,	1185	74	Higher Standard. Mathematics.
2	Ralla Ram,	.. Lucknow,	78		Higher XXXXXXXXXX Pass in Drawing
3	Muhammad Umar,	.. Baharampur,	585	40	
4	Kawal Nain,	.. Gurgaon,	575	35	
<i>Music Class.</i>					
<i>(Full Marks, 250)</i>					
1	Ram Bhaj,	..	182	47	Passed on Head XXXXXXXXXX

1874

EXAMINATION CLASS.

(Full Marks, 5100)

1	Ridd, A. J. P.,	.. Lieut., 20th F N Infantry,	Passed out on 9th March, 1874, and posted to Bengal for Family Work.
2	Peterson, V. B.,	.. La Martiniere, Lucknow,	.. ..
3	Shir Dayal, M.A.,	.. Govt. College, Lahore,	.. ..
4	Jarnana, S.,	.. Bp Ootien School, Bunka,	.. ..
5	McLaughlin, F. J.,	.. Birmingham & Rev H.S.ells,	.. ..
6	Ram Dayal, M.A.,	.. Govt. College, Lahore,	.. ..
7	Gwyther, H. T.,	.. La Martiniere, Calcutta,	.. ..
8	Adie, A. R.,	.. La Martiniere, Lucknow,	.. ..
9	Baba Mal, M.A.,	.. Govt. College, Delhi,	.. ..
10	Smith, H. G. F.,	.. St Xavier's, Calcutta,	.. ..
11	Mahendranath Mukhopadhyay,	.. Presidency College, Calcutta,	.. ..
12	Campbell, R. L.,	.. Missouri School,	.. ..

* Qualified in Photography

1874.

No.	Name.	Rank and Corps, and where educated.	Age	Remarks.
1	McLaughlin, W T,	Lieut., 49th Regiment,	2219 78	Higher Standard Government Prize of Rs. 1,000 Thompson Gold Medal for best Design, Col. Medley's Prize for Civil Engineering Genl. Macdonald's Prize for Physical Sciences. Drawing Prize Photography, [redacted]
2	Moore, F., Lieut., T C	By Cotton School, Simla,	1908 60	
3	Wilham, J H, Esq., T C V R,	La Martinieres, Calcutta,	1687 60	Silvering Prize, presented by B Smart Esq. Qualified in Photography
4	Seest, O G	Edinburgh & Rev H Seale,	1862 58	Photography, [redacted]
5	Dodsworth, A T,	Missouri School,	1738 55	
6	Jagdis Ray,	Govt. College, Dacca,	1709 54	Kashya Lal's Prize of Rs. 50.
7	Deane, G K,	Lieut., 4th Hussars,	1765 54	Qualified in Photography
8	McLaughlin, R H,	Birmingham & Rev H Seale,	1640 53	
9	Beale, B W,	Royal Naval School, London, and Rev H Seale,	1578 50	
10	Fleming, C,	By Cotton School, Simla,	1541 48	
11	Sagar Mal,	Govt. College, Lahore,	1512 46	
12	Abdulla Kiam Akmal,	High School, G a n h a t i, Azam,	1507 45	Qualified in Photography
13	Scottland, W,		1502 43	
14	Bose, A E,	Rev. H. Seale, Monrovia,	1439 45	Failed
SUBORDINATE CLASS				
(Full Marks, [redacted])				
1	Wardman, J,	Sergeant, H-4, Royal Arty.	1051 76	Higher Standard Prize for General Merit. Qualified in Photography.
[redacted] CLASS.				
(Full Marks, [redacted])				
Sub-Overseers, (Military).				
1	[redacted] Rahim,	Sowar, B C,	986 54	
2	Lal Khan,	Sowar, B C,		
3	Chait Lal,	Sowar, B C,		
4	Narayan Singh,	Sowar, 7th B C,		
5	Sarmuk Singh,	Sowar, 7th B C,	851 41	
6	Mustafa Khan,	Sepoy, 18th H I,	800 36	
7	Karir Hussain,	Sowar, 6th B C,	878 36	
8	Mihli Singh,	Sepoy, 42nd H I,	807 33	
9	Chanda Singh,	Sepoy, 24th F H I,		
Sub-Overseers, (Civil).				
1	Nasib Mal,	Azamgarh,		Passed out on 18th March, 1874, and posted to Bengal for Famine Works.
2	Nadir Lal,	Sitabnagar,		
3	Muhammad Hussain,	Bagalkot,		
4	Asghar Ali,	Meerut,		
5	Farzand Ali,	Meerut,		
6	Zahar Ahmad,	Dugband,		

1874.

No.	Names.	Rank and Corps, and where obtained.	Points.	Remarks.
1	Bil [redacted]	.. Sikandarabad,	1116 70	Higher Standard.
2	Gobind Sahay,	.. Sikandarabad,	1104 59	General Merit.
3	Muhammad Ibrahim,	.. Saharanpur,	1049 66	Higher Standard
4	Ram Prasad (1),	.. [redacted]	1030 64	Higher Standard
5	Prabhu Dayal,	.. Saharanpur,	977 61	Higher Standard
6	Prabhu Lal,	.. Diba,	947 60	Higher Standard
7	[redacted] Kishan,	.. Bulandshahr,	941 59	
8	[redacted] Mal,	.. Deoband,	940 58	
9	[redacted] Singh,	.. Barhama,	939 58	
10	Prem Singh,	.. Gajrawala,	937 58	Prize for Civil Engineering.
11	Raja Ram,	.. Sikandarabad,	918 57	
12	Hassan Sahib,	.. Meerut,	914 57	
13	Mithu Lal,	.. Bulandshahr,	911 57	
14	Morari Ram,	.. Khanas,	908 57	
15	Singh Ram,	.. Diba,	907 57	
16	Ramchand,	.. Barwaly,	891 57	
17	Zamat Ray,	.. Roostee,	878 56	
18	Sukhan Lal,	.. Meerut,	871 54	
19	Khas Chand,	.. Bulandshahr,	837 53	Prize for Drawing
20	Isayut Ali,	.. Bareilly,	831 52	
21	Har Prasad,	.. Roostee,	820 52	
22	Abdur Rahman,	.. Ludhiana,	826 52	
23	Bhoj Raj,	.. Bulandshahr,	826 52	
24	Janki Prasad,	.. Sikandarabad,	811 51	
25	Ram Prasad (3),	.. Meerut,	787 49	
26	Sukdeo Mal,	.. Najibabad,	784 48	
27	[redacted]	.. Bijnor,	774 48	
28	Suman Ali Khan,	.. Muzaffarnagar,	753 47	
29	Munna Lal,	.. Sikandarabad,	735 46	
30	Kesho Ram,	.. Dera Ghazi Khan,	736 46	
31	Hira Lal,	.. Muzaffarnagar,	707 44	
32	Nusrallah Khan,	.. Agra College,	681 41	
33	Bansi Lal,	.. Deoband,	630 41	
34	Shankar Lal,	.. Muzaffarnagar,	630 39	
35	Ram Lal,	.. Bulandshahr,	600 36	
Nag: [redacted]				
1	Lachmi Datta,	.. Feroz,	983 67	Higher Standard
2	Ganesh Lal,	.. Meerut,	937 56	
3	Kala Nand,	.. Feroz,	912 51	

1875.

(Full Marks, [redacted])

1	Touss, R. W. L.,	.. La Martiniere, Lucknow,	2543 78	Higher Standard
Jodie Prize of Rs. 1,000 [redacted]				
Gold Medal for Mathematics [redacted]				
MacLagan's Prize for Physical Science. Qualified in Photography				

1876-

No.	Name.	Rank and Corps, and where educated.	Age	Remarks
2	Grant, W. J.	Regiment, ..	2282	Higher Standard. Thomson Gold Medal for best Design Col Medley's Prize for Civil Engineering. Mr Smart's Prize for Surveying Prize for Drawing Prize for Photography, 1874
3	Mahendranath Chakravarty, B.A.	Queen's College, Bangalore, ..	2319	71 Higher Standard. The Thomson Prize of Rs 250 Qualified in Photography.
4	Emmery, R. J.	Bp Cotton School, Simla	2179	67 Higher Standard. Lieutennat Mayne's Prize for Mechanism. Qualified in Photography.
5	Chakrabarti, A. T.	St. Xavier's, Calcutta. ..	2344	68 Higher Standard. Qualified in Photography.
6	Savadeita Parde, B.A.	Queen's College, Bangalore, ..	1982	57 Raj Kanya Lal's Prize of Rs. 50
7	Lalbahai Ramji Sahani,	Govt. College, Lahore. ..	1980	56
8	Lilly, H. A.	La Martiniere, Lucknow, ..	1793	55
9	Gilbert, W. H.	Bp Cotton School, Simla, ..	1759	54
10	W. H.	Munro's School, ..	1719	53
11	W. H.	Rev H. Bell, Munro's, ..	1679	52
12	W. H.	Govt. College, Lahore. ..	1985	51
13	W. H.	Bp Cotton School, Simla, ..	1946	50
14	Woodward, J. A.	Wood's Academy, Munro's, ..	1699	49
15	Concomon, T.	Wood's Academy, Munro's, ..	1585	48
16	Neville, C. W.	La Martiniere, Lucknow, ..	1579	47
17	Burton, C. E.	St. George's, Munro's, ..	1551	46
18	Townsend, J.	Bp Cotton School, Simla, ..	1545	45
19	Hine, C. W.	Bp Cotton School, Simla, ..	1481	44
20	Copeland, D.	Wood's Academy, Munro's, ..	1346	41
UPPER SECONDARY CLASS				
(For Marks, 1900)				
1	Anderson, A.	Private, 2nd Regiment, ..	1331	62 Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering and Surveying
2	Leamouth, A.	Private, 2nd Regiment, ..	1365	60 Higher Standard. Prizes for Photography
3	Müller, H.	Lawrence Asylum, Mount Abu, ..	1326	59
4	Bonnet, F.	Corporal, 60th Regiment, ..	1325	58
5	Swann, V. H.	Corporal, 4th Hussars, ..	1323	57
6	Logan, R.	Corporal, 1st Regt., ..	1303	56
7	Hay, A. L.	Mr. A. F. R. H. Artillery, ..	1192	70
8	Shah Mahomed,	Govt. School, Asantur, ..	1133	67
9	DeLange, J. A.	Lance-Corpl. 90th Regt., ..	1100	66
10	Williams, C.	Lance-Corpl. 60th Regiment, ..	1099	65
11	Morrison, J.	Private, 1st Regiment, ..	1078	64
12	Clifford, W. H.	Lance-Sergeant, 49th Regt., ..	1049	63
13	Shamsher Singh,	Dahm Mission School, ..	1047	62
14	Cumner, J. A.	Calcutta Boys' School, ..	1019	60

1875.

No.	Name.	Rank and Corps, and where educated	Mark obtained	Remarks.
15	Mohan Lal,	.. Barilly College, ..	245 50	
16	Holt, C.,	.. Lance-Bapt., 2-nd Regt., ..	246 50	
17	Bhagwan Das,	.. Government College, Delhi, ..	254 55	
18	Chander Lal,	.. Government College, Delhi, ..	251 55	
19	Kantichander Boodya- padyay,	.. Govt. College, Lahore, ..	296 50	
20	Ram Sarin,	.. Govt. College, Aligarh, ..	275 50	
21	Marten, J. L.,	.. Munro's School, ..	275 50	
22	Nicobar, L.,	.. Private, 7-60th Infan., ..	232 40	
23	Burke, J.,	.. St. Fidelis Schl., Munroon, ..	294 47	
Lower Class.				
(Full Marks, 3000).				
Sub-Officers, (Military).				
	Ali Mohammad,	.. Sepoy, 8 and M., ..	754 49	
	Ram Singh,	.. Sowar, 4th B. Co., ..	758 47	
	Narayan Singh,	.. Sowar, 13th B. Co., ..	749 47	
	Kam Singh,	.. Sowar, 4th B. Co., ..	734 46	
	Hidhan Singh,	.. Sowar, 4th B. Co., ..	680 45	
	Maha Singh,	.. Sepoy, 8 and M., ..	630 39	
Sub-Officers, (Civil).				
Upper Class.				
1	Ram Chandra,	.. Sakandharabad, ..	1149 72	Higher Standard Prize for General Merit and Surveying.
2	Ram Lal,	.. Deoband, ..	1133 71	Higher Standard Prize for Civil Engineering, Drawing & Second Prize for Surveying.
4	Datt Prasad,	.. Bulandshahr, ..	1100 69	Higher Standard Prize for Mathematics.
5	Kashan Chand,	.. Ludhiana, ..	1079 67	
6	Shams-ud-din,	.. Bijnor, ..	1058 65	
7	Fakir Chand (2),	.. Baraut, ..	1039 64	
8	Shankar Lal,	.. Nagpur, ..	1022 64	
9	Amba Prasad,	.. Sakandharabad, ..	1020 64	Higher Standard.
11	Lodhi Prasad,	.. Kaurala, ..	1008 63	
12	Javed Hussain,	.. Agra, ..	1006 62	
13	Jawahar Singh,	.. Amritsar, ..	1005 63	
14	Kathal Ram,	.. Ludhiana, ..	1003 62	
15	Mamodi Lal,	.. Meerut, ..	994 62	
16	Dwarka Prasad,	.. Feroz, ..	988 62	
17	Shembhat Das,	.. Baraut, ..	984 62	
18	Fakir Chand (1),	.. Deoband, ..	981 61	
19	Bendara Das,	.. Sardhana, ..	976 60	
20	Choti Lal,	.. Chandpur, ..	960 60	
21	Muntes Hussain,	.. Jaunpur, ..	949 59	
22	Chayya Mal,	.. Saharanpur, ..	938 58	
24	Fakur Hussain,	.. Meerut, ..	918 57	
25	Kodari Lal,	.. Nagina, ..	908 56	
26	Kodarnath (1),	.. Bijnor, ..	902 56	

1875.

No.	Name.	Rank and Corps, and where obtained.	Age.	Points.	
36	Mohammed Ali,	.. Hagia,	..	808 56	
37	Kishan Lal,	.. Najibabad,	..	809 45	
38	Jwala Prasad,	.. Bijnor,	..	809 56	
39	Radha Kishan,	.. Mooltan,	..	809 56	
40	Rish Lal,	.. Ludhiana,	..	810 55	
41	Bhup Singh,	.. Meerut,	..	810 54	
42	Samsat Lal,	.. Sikanderabad,	..	811 53	
43	Banwar Lal,	.. Deoband,	..	812 52	
44	Loti Ram,	.. Saharanpur,	..	812 50	
45	Bhir Dayal,	.. Meerut,	..	798 50	
46	Narayan Singh,	.. Jalandhar,	..	798 49	
47	Ugar Sen,	.. Ludhiana,	..	798 49	
48	Abdur Hamid,	.. Karnal,	..	757 47	
49	Rup Ram,	.. Farnah,	..	754 46	
50	Mohammed Hussain,	.. Hagia,	..	708 44	
<i>(Nagar Class)</i>					
51	Indar Man,	.. Aligarh,	..	1137 70	<i>Higher Standard</i>
52	Kasho Ram,	.. Najibabad,	..	1014 64	
53	Kedar Nath,	.. Meerut,	..	943 59	
54	Hari Singh,	.. Dehra,	..	880 59	
55	Raghu Mal,	.. Meerut,	..	832 52	
56	Sundaram,	.. Kanpur,	..	728 44	
<i>Engineers and Draftsmen.</i>					
<i>(Full Marks, 1848).</i>					
1	Zahar Ahmad,	.. Ambala,	..	861 56	
2	Ahmad Beg,	.. Saharanpur,	..	543 37	
<i>Draftsmen.</i>					
<i>(Full Marks, 400).</i>					
1	Mulchand,	..	..	...
<i>ENGINEER CLASS.</i>					
<i>(Full Marks, 2250).</i>					
1	Krishnachandra Roy,	Queen's College, Banar,	2260 70	<i>Higher Standard</i> Council of India Prize of Rs 1000. The Thomson Prize of Rs. 250. Qualified in Photography.	
	dyopadhyay, B.A., ..				
2	Granville, H.,	.. La Martiniere, Lucknow, ..	2250 70	Gentley Gold Medal for Mathematics. Capt Cunningham's Prize for Applied Mathematics.	
3	Macleod, W.,	.. High School, Southampton,	2220 60	<i>Higher Standard</i> Col Medley's Prize for Civil Engineering. Qualified in Photography.	

1878.

No.	Name.	Rank and Corps, and where obtained.	Amount	Remarks.
4	Hosander, C. E., <i>Ensign</i> , <i>T.C.V.R.</i> , ..	Mumoon School, ..	2123 68	Higher Standard. General Macdagan's Prize for Physical Science.
5	Gwyther, W. B., ..	La Martinière, Calcutta, ..	2149 68	Prize for Drawing.
6	DeMello, C. H., ..	By Cotton School, Bunka, ..	2090 85	
7	Grant, H. B., <i>Lieut.</i> , <i>T.C.V.R.</i> , ..	Mumoon School, ..	2045 68	Latet. Maycock's Prize for Mechanism. Prize for Photography, 1875
8	Bahadur Ram Singh, ..	Onnang College, Lucknow, ..	1855 80	Raj Bahadur Kumbha Lal's Prize of Rs. 50. Qualified in Photography
9	Anthony, H. B., ..	By Cotton School, Bunka, ..	1800 50	
10	Woodroffe, F. M., ..	La Martinière, Lucknow, ..	1809 80	Qualified in Photography.
11	Reuther, A. M., ..	Emilgen (Wartenberg), and Rev H. Sells, Mus souri, ..	1801 87	
12	Evans, L. J. B., ..	Alexandria, and .. Sells, Mussoorie, ..	1813 80	Thomson Gold Medal for best Design.
13	Green, W. M., ..	Wood's Asy, Mussoorie, ..	1788 54	
14	Prayaga Sinha, B.A., ..	Queen's College, Benares, ..	1780 59	
15	Rup Chand, ..	Govt and Mission Schools, Lahore, ..	1730 83	
16	Roche, C. M. B., ..	Devoten Col, Calcutta, and Rev. H. Sells, Mussoorie, ..	1683 83	
17	Trilokynath Maho- pāthay, ..	Govt. College, Lahore, ..	1659 51	
18	Rine, C. W., ..	By Cotton School, Bunka, ..	1551 46	
UPPER BURSARIAL CLASS				
(Joh. Meris, 1700).				
1	Martin, W., ..	Gunner, R. 11, 2 Artillery, ..	1200 75	Higher Standard. Prizes for General Merit and Civil Engineering
2	Chandan Gopal, ..	Mission School, Meerut, ..	1230 73	Higher Standard. Prizes for Mathematics and Drawing
3	Chatterjee, R. J., ..	Lee-Corpl, 1st Regt., ..	1180 60	Higher Standard. Prizes for Surveying Qualified in Photography
4	Morgan, A. B., ..	Lee-Sergt, 1-4th Regt., ..	1126 60	Captain Carr's Prize for Applied Mathematics
5	Stacey, W. C., ..	Private, 65th Regiment, ..	1121 68	Higher Standard
6	Mahony, J., ..	St. Felix's Sch., Mussoorie, ..	1120 83	
7	Cooper, C. W. E., ..	La Martinière, Lucknow, ..	1117 60	Higher Standard. Qualified in Photography.
8	Mays Dis, ..	Mission School, Lahore, ..	1080 60	
9	Sharma, H. J., ..	Private, 40th Regiment, ..	1083 68	Prize for Photography.
10	Bench, C., ..	Lee-Corpl, 40th Regt., ..	1067 62	Key Memorial Prize for Examining
11	Daly, T. W., ..	La Martinière, Lucknow, ..	974 57	
12	Edden, J., ..	Lee-Corpl, 2-40th Regt., ..	974 57	
13	Rail Charan Sen, ..	Engineering Col., Calcutta, ..	974 57	
14	Amar Singh, ..	St. Stephen's College, Delhi, ..	969 57	

1876.

No.	Name.	Rank and Corps, and where educated.	Marks obtained.	Percent.	
16	Litchfield, J.	Private, 4th Hussars.	258	52	
17	Rayner, G. W.	La Mortuère, Calcutta.	248	56	
17	Dargie, J.	Lea-Corps, 51st Regt.	248	56	
18	Senly, G. A.	Private, 44th Regiment.	248	56	
19	Corkery, J.	St. Fidele's Schol. Macao.	248	56	
20	Cloy, E.	Lea-Corps, 51st Regt.	250	50	Qualified in Photography.
21	B. Dikhan Singh.	Mission School, Amritsar.	250	50	
22	Thompson, B.	Lea-Serje, 40th Regt.	250	50	
23	Benedo Behari Ban.	London Mission Soc. Inst.	250	50	Will be given
24	dyopidhydy.	Calcutta.	250	50	Overseas in favourably
24	Miran Bakhsh.	Govt. School, Gujrat.	250	50	ported on at end of Appre-
25	Foley, J.	Lea-Corps, 53rd Regt.	250	50	year.
LOWER SUBORDINATE CLASS.					
(Full Marks, 1000).					
Sub-Overseas, (Military)					
1	Amar Singh.	Sowar, 7th B. C.	1000	100	Higher
2	Dewan Singh.	Sowar, 1st C. I. H.	1000	100	
3	Gobind Sahay.	Sowar, 12th B. C.	1000	100	
4	Prasa Sahb.	Sowar, 14th B. L.	1000	100	
5	Hakram Chand.	Sowar, 13th B. C.	1000	100	
6	Bawalda.	Sopoy, 6 and M.	1000	100	
7	Rai Ram.	Sowar, 14th B. L.	1000	100	
8	Mukta Prasad.	Sopoy, 3rd Regt., B. L.	1000	100	
10	Abdul Rahman.	Sowar, 19th B. L.	1000	100	
Sub Overseas, (Civil)					
(First Class)					
1	Thakur Dás.	Ladhiana.	1218	76	Higher Standard. Prizes for General Merit, Civil Engineering and Drawing.
2	Kahori Lal.	Munassarwar.	1100	75	Higher Standard.
3	Barua Ram.	Ladhiana.	1006	69	Higher Standard. Prizes for Surveying.
4	Lakshmi Ray.	Bakramabad.	1000	65	Higher Standard. Prizes for Mathematics.
5	Bakri Prasad.	Bulandshahr.	1004	63	
6	Banwari Dás.	Nayababad.	1001	62	
7	Rahim Bakhsh.	Saharanpur.	1000	67	
8	Prithvi Dás.	Gorak.	1002	66	Higher Standard.
9	Ramji Lal.	Bohtak.	1000	65	
10	Sagar Mal.	Bohtak.	1016	64	
11	Lala Ram.	Ladhiana.	1014	64	
12	Jawahir Lal.	Bulandshahr.	998	63	
13	Mokand Singh.	Ladhiana.	998	63	
14	Shib Sahay.	Munassarwar.	998	63	
15	Akmal Hussain.	Bijnor.	998	63	
16	Gopal Chand.	Munassarwar.	978	61	
17	Jagannath.	Gorak.	978	61	

1876.

No.	Name.	Rank and Corps, and when obtained.	Age at entry.	Service.
	Infyat Ali,	.. Nagina,	972	61
	Mohar Singh,	.. Deohand,	959	60
	Ganga Ram,	.. Badana,	948	59
	Aladya,	.. Beharampur,	948	59
	Ganga Sahay,	.. Musaffarnagar,	939	59
	Wahid Beg,	.. Andpahr,	939	59
	Muhammad Ibrahim,	.. Beharampur,	927	59
	Ram Prasad,	.. Bulandshahr,	929	58
	Dahi Sahay,	.. Musaffarnagar,	927	58
	Fateh Chand,	.. Meerut,	922	58
	Chauda Singh,	.. Delhi,	918	57
	Abdur Rahman (1),	.. Karaul,	910	57
	Muhammad Hadi,	.. Lucknow,	899	56
	Abdur Razzak,	.. Bijnor,	885	55
	Bakhtwar Singh,	.. Beharampur,	885	55
	Ashraf Ali,	.. Bulandshahr,	883	55
	Nahi Baksh (1),	.. Moradabad,	867	54
	Harnam Singh,	.. Beharampur,	867	54
	Banwari Lal,	.. Beharampur,	860	54
	Walidid Khan,	.. Akhandabad,	850	53
	Haneri,	.. Meerut,	848	53
	Abdur Rahman (2),	.. Bijnor,	842	53
	Hargi Lal,	.. Bijnor,	831	51
	Jafir Ah,	.. Bijnor,	739	46
	(Nagari Class)			
	Ganga Ram,	.. Ahyar,	1074	67
17	Atig Ram,	.. Garhwal,	964	63
	Budri Datta,	.. Garhwal,	976	61
27	Ganesh Lal,	.. Ahyar,	873	55
	(Draftsmen.			
	(Full Marks, 280)			
1	Haji Nahi Baksh,	.. Meerut,	230	63
2	Yusef Ah,	.. Bijnor,	188	63

1877.

ENGINEER CLASS.

(Full Marks, 2250).

1	Fauzant, J T,	.. Up. Cotton School, Bunka,	2458	67	Higher Standard Council of India Prize of Rs 1,000. Cantley Gold Medal for Mathematics. Col. Medley's Prize for Civil Engineering. Capt. Cunningham's Prize for Applied Mathematics. Qualified in Photography.
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1877.

No.	Name	School and Corps, and where educated.	Mark obtained.	Remarks.
2	Bagley, W. A.,	Minor Central College, Al- lahabad, ..	1879 65	Higher Standard General Maclean's Prize for Experi- mental Science. Qualified in Photography.
3	Bensley, B. C.,	Godolphin School, London, & La Martiniera, Lucknow,	1881 66	Thomson Gold Medal for best Design. Prize for Drawing, Lieut. Maycock's Prize for Mechanism. Prize for Pho- tography, 1876.
4	Swinserton, W. A. R.,	St. Cotton School, Wmle,	1883 60	Qualified in Photography.
5	Foy, E.,	La Martiniera, Lucknow, ..	1915 69	
6	Mohan Lal Kishore,	Govt. College, Bareilly, ..	1908 58	Rai Bahadur Kanya Lal's Gold Medal.
7	Sohan Lal,	Government College, Agra,	1888 57	
8	Sham Nath,	Government College, Delhi,	1819 56	
9	Banhar, C.,	Wood's Academy, Massore,	1792 54	
10	Mitchell, E. F.,	Wood's Academy, Massore,	1829 52	Qualified in Photography.
10	Kahar Das,	Govt. College, Lahore, ..	1898 52	
12	McHutton, A. M.,	La Martiniera, Lucknow,	1889 47	Sailed.

(Full Marks, 1900)

1	Bellamy, A.,	Drummer, 50th Regiment,	1415 63	Higher Standard. Prizes for General Merit, Civil Engi- neering, 'Key Memorial' Prize for Estimating, and Capt. Cunningham's Prize for Applied Mathematics. Qualified in Photography.
2	Thomas, A.,	Lance-Corpl., 6th Hussars,	1888 60	Standard Prizes for Drawing and Photography and Major .. N ..
3	O'Neil, J.,	Lance-Sergt., 68th Regt.,	1804 77	Higher Standard. Prizes for Surveying. Qualified in Pho- tography.
4	Edmonds, A.,	2nd Corpl., Royal Engns.,	1263 76	Higher Standard. Qualified in Photography.
5	Clarke, A. H.,	Private, 10th Hussars, ..	1281 73	Higher Standard. Prizes for Mathematics.
6	Case, M.,	Sergt., 1-18, Royal Arty.,	1247 73	
7	Lockyer, E.,	Corpl., B-5, Royal Arty.,	1102 66	
8	Robinson, H. H.,	Sergt., F-11, Royal Arty.,	1098 66	
9	Anderson, A. T.,	Lawrence M. A., Banwar,	1070 62	Higher Standard.
10	Smith, C. F.,	Sp. Cotton School, Sumle,	1068 62	Higher Standard. Prizes for Photography.
11	Fitzgerald, W.,	Sergant, 58th Regiment, ..	1037 62	Higher Standard.
12	Agar, W. C.,	Lance-Sergt., 61st Regt.,	1053 62	
13	Prasanna Kishor Das,	Metropole Instn., Calcutta,	1022 60	
14	Burrowsen Sen,	Pogose School, Dacca, ..	1021 60	Higher Standard.
15	Swing, H.,	La Martiniera, Lucknow, ..	1008 59	
16	Shepherd, R.,	La Martiniera, Lucknow, ..	983 56	
17	Bell, G.,	Sergt., G-18, Royal Arty.,	982 54	

1877.

No.	Name.	Rank and Corps, and where educated.	Marks obtained.	Remarks.
17	Kidari Lal.	.. Bareilly College, ..	962.58	
18	Wood, C F.,	.. Corporal, 2nd Regiment, ..	967.47	
19	Andrews, J.,	.. Bp Cotton School, Rume, ..	989.56	
20	Williams, J. J.,	.. Lance-Corpl, 10th Hussars, ..	985.55	
21	Calvert, P.,	.. St Peter's College, Agra, ..	990.55	
22	Thornston, E.,	.. Private, 6th Hussars, ..	919.54	
23	Grey, J.,	.. Lance-Corpl, 40th Regt, ..	877.52	
24	Haricharan Mubhopadhyay.	.. High School, Midnapore, ..	860.51	Will be given Certificate as Overseer, if favourably reported on at end of Apprenticeship year.
25	Har Govind,	.. Government College, Agra, ..	851.49	
LOWER SUBORDINATE CLASS				
(Full Marks, 1800)				
Sub-Overseers, (Military)				
1	Syad War Khan,	.. Bowar, 12th B. I.,	810.61	
2	Ram Das,	.. Bowar, 12th B. G.,	644.60	
Sub-Overseers, (Civil)				
1	Dahi Singh,	.. Meerut,	1143.73	Higher Standard. Free for Overseer and Survey
2	Panjab Singh,	.. Lahore,	1141.71	Higher Standard. Free for Drawing
3	Dahi Chand,	.. Jullundur,	1128.70	Higher Standard.
4	Sunder Ram,	.. Rohtakpur,	1094.68	
5	Todar Mal,	.. Mouree,	1045.65	
6	Ahs Baksh,	.. Lahore,	1044.63	Higher Standard.
7	Jagmat Ray,	.. Sahardastabad,	1035.64	
8	Rodha Kucha,	.. Munshirangat,	998.62	Free for Civil Engineering.
9	Jasir Hussain,	.. Ferozshah,	998.62	
10	Janki Nath,	.. Munshirangar,	973.61	
11	Seraj Bhan (1),	.. Testera,	966.60	
12	Seraj Bhan (2),	.. Deoband,	964.60	
13	Lankaya Lal,	.. Harrow,	916.57	
14	Harkish Lal,	.. Saharapur,	908.57	
15	Fasal Hussain,	.. Bulandshahr,	897.56	
16	Thakar Das,	.. Munshirangat,	895.55	
17	Sham Lal,	.. Sardhana,	888.54	
18	Muraddin,	.. Roorkee,	848.52	
19	Murari Lal,	.. Roorkee,	832.51	
20	Nanah Mal,	.. Meerut,	832.51	
21	Donki Nandan,	.. Meerut,	830.51	
22	Fohla Mal,	.. Indiana,	804.68	
23	Behari Lal,	.. Bijnor,	796.50	
24	Baldeo Singh (1),	.. Saharapur,	771.48	
25	Gobind Ray,	.. Roorkee,	765.48	United.
26	Dyes Nath,	.. Mowdabad,	765.48	
27	Sita Ram,	.. Jullundur,	765.48	
28	Baldeo Singh (2),	.. Sardhana,	765.47	
29	Melchand,	.. Bijnor,	760.47	

ART.

	Name.	Rank and Corps, and where educated.	Marks gained.	Prize.	
	Harnam	.. Deolabad,	745.47	}	
32	Ananta Prasad,	.. Manglam,	740.46		
35	Mahmud Ali,	.. Birmor,	739.46		
	Mohd Bakht,	..	738.46		
37	Kundan Lal,	.. Munabhar,	700.44		
	Mutab Hussain,	.. Agra,	688.43		
(Nagri Class)					
10	Lohman Das,	.. Malinger,	975.61	Prize for Mathematics and Major Brandrab's Prize for English.	
14	Hedri Das,	.. Schneiger,	967.56		
11	Hardo	.. Bahadur,	325.56		
(Metric Class)					
(Full Marks, 400)					
1	Lachman Singh,	.. Carpenter,	308.75		
3	Pan Raj,	.. Carpenter,	299.75		
2	Abdulk,	.. Carpenter,	283.57		
4	Hassam Ali,	.. Bricklayer,			

1878.

ENGINEER CLASS

(Full Marks, 3200)

1	Fahar, C. R. R.,	.. La Martiniere, Lucknow,	2474.76	Higher Standard Council of India Prize of Rs. 1,000 Cantley Gold Medal for Ma- thematics. Thomson Medal for best Design. Col. Medley's Prize for Civil En- gineering. Qualified in Pho- tography
2	Officer, G. T.,	.. By Cotton School, Banka,	2445.75	Higher Standard
3	Bennett, W. R. T.,	.. Liverpool College, and Man- chester School,	2124.96	General Maclean's Prize for Experimental Science. Quali- fied in Photography.
4	Classey, D. J.,	.. St. George's College, Man- chester,	2115.83	} Qualified in Photography.
■	Foy, W. R.,	.. La Martiniere, Lucknow,	2004.83	
■	Hartott, G. M.,	.. La Martiniere, Lucknow,	1986.81	Lieutenant Maycock's Prize for Mechanics
7	Chasler, E.,	.. Manchester School,	1963.90	
8	Rajee Lal,	.. Government College, Agra,	1945.80	Higher Standard The Thom- son Prize of Rs. 250. Quali- fied in Photography.

YEARLY LIST.

1878.

No.	Name.	Rank and Corps, and where obtained.	Mark obtained.	Remarks.
9	Hauig, R. L.,	.. Edinburgh High School and Manchester School, ..	1885 58	Prize for Drawing. Prize for Photography, 1877.
10	Copeland, J., <i>Junior</i> , T.C.V.R.,	.. Wood's Academy, Man- soura,	1888 57	
11	Bakht Lal,	.. Meer Central College Al- lahabad,	1712 53	Raj Bahadur Kunhy Lal's Gold Medal.
12	Ilfar Chander Das,	.. Presidency College Calcutta,	1622 50	
13	Buratt, J. E.,	.. Bp Cotton School, Sumla,	1606 49	
14	Leena, A. B., <i>3rd</i> <i>Lieut., T.C.V.R.</i> ,	.. Bp Cotton School, Sumla,	1590 46	
15	Gopal Das,	.. Govt College, Lahore,	946 29	Back.
UPPER SUBORDINATE CLASS				
(Full Marks, 1900)				
1	Elie, A. H.,	.. Lee-Corpl, 51st Regiment,	1889 82	<i>Higher Standard</i> Prize for General Merit, Mathematics, Civil Engineering and Photography.
2	Conall, J. J.,	.. Lee-Corpl, 1-11th Regt., ..	1878 75	<i>Higher Standard</i> Prize for Surveying, and Messrs. Broomfield's Prize. Qualified in Photography.
3	Abbey, W.,	.. Lawrence M. A., Samawar,	1867 75	<i>Higher Standard</i> .
4	Sage, W.,	.. Lance-Corpl, 3-80th Rifles,	1812 71	<i>Higher Standard</i> . 'Easy Memorial' Prize for Estimating. Qualified in Photography.
5	Gentry, C.,	.. Private, 31st Regiment, ..	1800 71	<i>Higher Standard</i> .
6	Lee, J.,	.. Corporal, 45th Regiment,	1197 70	<i>Higher Standard</i> Qualified in Photography.
7	Malpas, A.,	.. Drummer, 68th Regiment,	1195 70	
8	Kher Singh,	.. Govt. School, Amritsar, ..	1163 68	<i>Higher Standard</i> .
9	Famella, W. B.,	.. Sergeant, 1-18, Royal Arty.,	1115 60	<i>Higher Standard</i> . Qualified in Photography.
10	Ward, D. K.,	.. Lee-Corpl, 40th Regiment,	1108 65	<i>Higher Standard</i> .
11	St. Charles, L.,	.. Private, 1-35th Regiment,	1105 65	
12	Perry, C.,	.. Private, 44th Regiment, ..	1102 65	
13	Sultan Singh,	.. District School, Lahore, ..	1102 68	
14	Lawrence, J.,	.. Lt. Martindale, Lucknow, ..	1100 65	
15	Whitley, W.,	.. Private, 51st Regiment, ..	1067 62	
16	Bryan, J.,	.. Lt. Martindale, Lucknow, ..	1066 62	<i>Higher Standard</i> .
17	Fitzpatrick, P. J.,	.. St. George's College, Man- soura,	1060 61	
18	Rogers, H. A.,	.. Corporal, Royal Engineers,	944 58	Prize for Drawing.
19	.. K.,	.. High School, Aligarh, ..	946 57	
20	Henderson, T.,	.. Lon-Corpl, 51st Regiment,	946 56	
21	Dumath Babay,	.. .. School, Campa, Saran,	946 56	
22	Smith, J.,	.. Lee-Corpl, 63rd Regt., ..	933 55	
23	Nityam Prasad,	.. High School, Aligarh, ..	929 53	
24	Jogindra Chandra Ganguly,	.. General Assembly's Insti- tution, Calcutta, ..	929 51	
25	Singleton, W.,	.. Lee-Corpl, 40th Regiment,	927 51	
26	Westwood, T.,	.. Lee-Corpl, 53rd Regt., ..	926 51	

TRAILY LIST.

1878

No.	Name.	Rank and Corps, and where attached.	Mark, General.	Percent.	
27	Sullivan, J.,	Sergeant, 1-25th	824	49	Will be given Certificate as Overseers if favourably reported on at end of Apprentices year
28	Rich, J. P.,	Private, 5th Lancs.	828	48	
29	Leslie, A. N. B.,	Private, 5th Lancs.	828	48	
30	Cirford, W. J.,	Private, 1-2nd Regiment.	745	44	Failed.
LOWER SUBORDINATE CLASS.					
(For Merit, 1868).					
Sub-Overseers, (Military).					
1	Jenab Ali,	Sowar, 9th B C,	732	46	Failed
2	Muhammad Hussain Khan,	Sowar, 7th B C,	720	45	
3	Sher Bas Khan,	Sowar, 5th B C,	685	43	
4	Abdul Rahman,	Drummer, 11th N I.,	680	42	
5	Wahyat Humia,	Sowar, 3rd C I H.,	663	41	
6	Jamal Singh,	Sowar, 2nd P I.,	560	36	
Sub-Overseers, (Civil)					
(Under Class)					
1	Sada Khan,	Ladhak,	1236	77	Higher General Merit, Surveying and Drawing
	Bahya Ram,	Jaipur,	1110	68	
	Fajal Kishore,	Bugtra,	1074	67	
	Muhammad Minir Khan,	Farukhabad,	1061	66	Higher Standard. Price for Civil Engineering.
6	Harnam Singh,	Saharanpur,	1053	66	
7	Harnam Ali,	Farukhabad,	1052	66	
8	Soban Lal,	Bulandshahr,	1027	64	Higher Standard.
9	Muhammad Ibrahim,	Bijoor,	1019	64	
10	Hardwar Lal,	Kanah,	1018	64	
11	Mehar Ali,	Saharanpur,	943	59	Failed.
	Sri Ram,	Musafarnagar,	932	59	
	Muhammad Ahmad,	Sikandarpur,	937	59	
	Chint Ram,	Jullundur,	932	59	
	Imam-ud-din,	Jullundur,	929	59	
	Nasir Kishore,	Bulandshahr,	907	57	
	Hari Ram,	Kanah,	868	54	
	Parlap Singh,	Fateh,	859	54	
	Abdul Rahman,	Saharanpur,	852	53	
21	Fida Hussain,	Musafarnagar,	853	53	
22	Umar Singh,	Deolund,	815	51	
23	Ranjit Singh,	Musafarnagar,	784	49	
24	Bard Singh,	Patala,	777	49	
25	Ghansam Lal,	Musafarnagar,	740	46	
26	Mahak Singh,	Roorkee,	733	46	
27	Babal Singh,	Musafarnagar,	716	45	
28	Shams-ud-din,	Bijoor,	708	45	

1878.

No.	Name	Rank and College and where educated	Mark obtained	Remarks
(Negri Class).				
9	Bri Govind,	.. (Aligarh,	..	Higher Standard Prizes for Mathematics and Experimental Science.
19	Rohat Singh,	.. Meerut,	.. 827.54	Major Sandbrook's Prizes for English.
20	Tara Datta,	.. Gurukul,	.. 845.78	
Artists Class				
(Full Marks, 935).				
1	Gokal Chand,	.. [Carpenter,	..	

1879.

MINOR CLASS.				
(Full Marks, 3250).				
1	Willcocks, J.,	.. Minnerne School,	.. 3705.82	Higher Standard. Council of India Prize of Rs. 1,000 as the most distinguished Student. Thomson Gold Medal for best Engineering Design. Col Medley's Prize for Civil Engineering. General Macdonald's Prize for Experimental Science. Prizes for Drawing. Maycock's Prizes for Surveying.
2	Goumont, G. E. V.,	.. La Martinière, Lucknow,	.. 3678.82	Higher Standard. Cantley Gold Medal for Special Experimental Science.
3	Sanyal Das, B. A.,	.. Lahore College,	.. 3301.71	Higher Standard. Thomson Medal 250 Babu Krishna Chandra Dasgupta's Prize for Mathematics.
4	Furley, F.,	.. Bp Cotton School, Sumla,	.. 3274.70	Higher Standard. Prizes in Photography.
5	Kanhsya Lal,	.. College,	.. 1938.61	Higher Standard. Rai Bahadur Kanhsya Lal's Medal.
6	Davis, J. G.,	.. Bp Cotton School, Sumla,	.. 1903.61	Qualified in Photography.
7	Gopal Chandra Chatterjee, B. A.,	.. College, Calcutta,	.. 1811.56	
8	Evans, J. E.,	.. Minnerne School,	.. 1723.38	Prize for Photography, 1878.
9	Floyd, C. J.,	.. Minnerne School,	.. 1671.51	Qualified in Photography.
10	Fitzsimons, A. G.,	.. La Martinière, Lucknow,	.. 1580.51	
11	Sell, E. W.,	.. La Martinière, Lucknow,	.. 1566.46	Failed.

1870.

No.	Name.	Rank and Corps, and where educated.	Age	Prize	Remarks.	
UPPER SUBORDINATE CLASS.						
(Full Marks, 1700).						
1	Flake, A. J.,	.. Lawrence M. A., Sonwar,	1478	67	Higher Standard. Prizes for General Merit, Mathematics, Civil Engineering, and Drawing. Qualified in Photography.	
2	Adams, G.,	.. Private, 1-6th Regiment,	1377	75	Higher Standard. Qualified in Photography.	
3	Milner, B.,	.. St. Peter's College, Agre,	1259	74		
4	Awar Nath,	.. Govt. College, Lahore,	1222	71		
5	Hari Krishan Pant,	.. Mission School, Almora,	1200	71		
6	Nichol, R.,	.. Private, 64th Regiment,	1188	70	Higher Standard. Prizes for Surveying and Photography, 'Key Memorial' Prize for Engineering and Major Beaudreth's Prize for Note Books.	
7	Gopal Chand,	.. Govt. College, Lahore,	1084	68	Higher Standard. Qualified in Photography.	
8	Parfett, A.,	.. Lance-Corpl, 1-6th Regt.,	1078	68	Higher Standard.	
9	Jumna Lal,	.. High School, Aligarh,	1062	63		
10	MacDermott, P.,	.. St. Peter's College, Agre,	1021	60	Higher Standard.	
11	Ram Lal,	.. High School, Aligarh,	1008	59		
12	Charanj Lal,	.. Forest Apprentice,	1001	59		
13	Sallara, B.,	.. Private, 15th Battalion,	970	57		
14	Moral, A.,	.. Lance-Serjt, 2-17th Regt.,	942	53		
15	Har Singh Dás,	.. Govt. School, Gagra,	856	51		
16	Jogai Kishore,	.. Patiala College,	831	49		Failed
LOWER SUBORDINATE CLASS.						
(Full Marks, 1000).						
1	Mohammed Imad Hussain,	.. Bulandshahr,	1202	73	Higher Standard. Prizes for General Merit, Engineering, and Drawing.	
2	Uttam Singh,	.. Hoshiarpur,	1196	73	Higher Standard. Prizes for Surveying.	
3	Baldeo Sahay,	.. Meerut,	1119	70	Higher Standard. Major Beaudreth's Prizes for English and Mathematics.	
4	Narayan Dás,	.. Hoshiarpur,	1119	70		
5	Kashi Ram,	.. Hoshiarpur,	1067	66		
6	Toti Ram,	.. Aligarh,	1054	66	Higher Standard. Prizes for Mathematics.	
7	Harkishan Dás,	.. Bulandshahr,	1017	64	Higher Standard.	
8	Hardwar Lal,	.. Hoshiarpur,	1007	63		
9	Munzadeh Lal,	.. Meerut,	977	61	Higher Standard.	
10	Kalla Singh,	.. Meerut,	950	59		
11	Ram Saran Dás,	.. Meerut,	912	57		
12	Ahmed Hassan,	.. Meerut,	901	56		
13	Babari Lal,	.. Bulandshahr,	889	55		
14	Imdad Hussain,	.. Dibr,	884	55		

1878-

No.	Name.	Rank and Class, and where educated.	Mark obtained.	Remarks.
16	Kaala Singh,	.. Ludhiana,	870/54	Failed.
16	Jaganmāth,	.. Meerut,	888/54	
17	Faiyaz Hussain,	.. Delhi,	888/52	
18	Usadeo,	.. Patiala,	718/45	
19	Wakil,	.. Patiala,	508/35	

1880

(Full Marks, 1880).

(Class A & B)

1	*Bhagat Ram,	A .. Hoshiarpur,	1138/71	Prize for General Mark.
2	*Ramji Lal,	A .. Roorkhee,	1138/70	Prize for Civil Engineering.
3	*Abdullah,	A .. Umballa,	1118/70	Prize for Roman Urdu.
4	*Barkat Hay,	A .. Gajrat,	1101/68	Prize for ..
5	*Jugal Kishor,	A .. Roorkhee,	1095/68	
6	*Kishan Lal,	A .. Balasdehah,	1094/68	Prize for Surveying
7	Farmanand,	A .. Moradabad,	1079/67	
8	Gopal Singh,	A .. Balasdehah,	1070/67	Prize for Mathematics.
9	Mohan Singh,	A .. Patiala,	1063/66	
10	Himmat Singh,	A .. Meerut,	1041/65	
11	Gham Ahmad,	A .. Ludhiana,	1034/64	
12	Hartula,	A .. Roorkhee,	1034/64	
13	Mutwaddi Lal,	A .. Meerut,	996/61	
14	Nasir Ali,	A .. Ferozshah,	978/61	Prize for Drawing.
15	Balwandas,	A .. Musaffarnagar,	968/59	
16	Kumbhaya Singh,	A .. Patiala,	911/57	
17	Fauz Muhammad,	A .. Sahasrampur,	901/56	
18	Kishan Chand,	A .. Gurdaspur,	887/55	
19	Narayan Prasad,	A .. Roorkhee,	883/53	
20	Kundan Lal,	A .. Musaffarnagar,	871/51	
21	Ram Prasad,	A .. Musaffarnagar,	759/47	
22	Ahmad Noqi,	A .. Roorkhee,	754/47	
23	Janki Prasad,	A .. Roorkhee,	717/45	Failed.
24	Munshi Lal,	A .. Roorkhee,	698/44	
25	Nur Muhammad,	A .. Patiala,	686/43	
26	Chandr Shukhar,	A .. Ferozshah,	679/42	
27	Chamman Lal,	A .. Sahasrampur,	685/42	
28	Shamshat Das,	A .. Musaffarnagar,	656/40	Failed
29	Amir Hussain,	B .. Mangalaur,	628/39	
30	Sudhan Lal,	B .. Farukhabad,	634/39	
31	Jivan Lal,	A .. Roorkhee,	620/36	
32	Gopal Singh,	A .. Feroz,	617/36	Failed.
33	Sattar Baksh,	A .. Ajmere,	585/33	
34	Anant Ram,	A .. Patiala,	587/32	
35	Birdev,	B .. Feroz,	441/20	

* Selected for a second year's instruction.

YEARLY LIST.

1880.

No	Name.	Rank and Corps, and where educated.	Mark obtained.	Remarks.
36	Muhammad Zafar, B..	Munshernagar,	419 25	Failed
37	Mahbab Ali, B..	Ramkhet,	396 25	

1881.

ENGINEERING CLASS.
(Full Marks, 3500).

1	Housden, W P.	Munsoorie School,	3079 75	Higher Standard Council of India Prize of Rs. 1,000 as the most distinguished student. Col Medley's Prize for Civil Engineering. General Dugan's Prize for Expertise. Prize for Drawing. Qualified in Photography.
2	Toose, J.,	La Martiniere, Lucknow,	2506 75	Higher Standard Council Gold Medal for Mathematics. Qualified in Photography.
3	Gwyther, F. H.	Munsoorie School,	2443 70	Prize for Photography.
4	Parrot, R. E.	La Martiniere, Lucknow,	2439 50	Higher Standard
5	Billings, H. G.	Munsoorie School,	2378 65	Qualified in
6	Jones, H. W.	Munsoorie School,	2228 45	Thomson Gold Medal. Engineering Design. Lieut Maycock's Prize for Surveying.
7	Kah, Krishna Mahabodhyai,	Lahore College,	2163 60	Railshahadur Kanhya Lal's Gold Medal.
8	Bry, Mohan Lal,	Canning College, Lucknow,	2126 61	Higher Standard. Prize of Rs. 250.
9	Ram Lal,	Agar College,	2067 59	
10	Henderson, J.,	Wood's Academy, Munsoorie,	2045 59	
11	Parsons, H. J.,	St. George's College, Munsoorie,	2011 37	
12	Mos, G.,	La Martiniere, Lucknow,	1995 54	
13	Holmes, P.	La Martiniere, Lucknow,	1758 58	

UPPER SUBORDINATE CLASS

(Full Marks, 1000)

1	H. H. D.,	Bawal Pradi,	1423 77	Higher Standard. Prizes for General Murt, Drawing and Surveying. Qualified in Photography.
2	Vivian, S. G.	Lawrence Asylum, Sanawar,	1408 76	Higher Standard. Prize for Mathematics.
3	Kowka, J.	St. George's College, Munsoorie,	1385 75	Qualified in Photography. Higher Standard.
4	Annaprasanna Ray,	Hugh College,	1278 40	
5	Maya, J. C.,	La Martiniere, Lucknow,	1263 40	

1891.

		Rank and Corps, and where educated.	Age	Remarks.
6	Singh,	Govt. School, Balkampur, ..	1225-66	
7	Goodwin, H.,	.. Lance-Corpl, 1-12th Regt.	1225-66	Prize for Civil Engineering and 'Reay Memorial' Prize for Estimating in Photography. Quailed
8	Willford, C.,	.. St. George's College, Mysore, ..	1218-66	Higher Standard. Prize for Photography.
9	Ralph, J.,	.. Lieut.-Corpl, 28th Regiment, ..	1166-65	Higher Standard
10	Byrne, C. M.,	.. Gunner, O-5, Royal Artillery,	1177-64	Major Brandreth's Prize for Note Books.
11	Khanbal Chand,	.. Govt. College, Lahore, ..	1162-65	
	All Muhammad,	.. Oriental College, Lahore, ..	1068-65	
	Kelly, P.,	.. Private, 2-4th Regiment, ..	1082-67	
	Wassman, F.,	.. Lieut.-Corpl, 28th Regiment,	1007-64	
	Sham Lal,	.. Zilla School, Agra, ..	977-65	
	Rameshar,	.. Patiala College,	940-60	Will be given Certificates as Graduates if favorably reported on at end of Apprentices year
17	Chandra Kanto Banerjee,	.. Kalmagar College,	911-60	
LOWER SUBORDINATE CLASS				
(F.W. Marks, 1900).				
Sub-Overseers, (Military)				
1	Aj. Khus Tiwari,	.. Sepoy, 10th B N I, ..	904-60	
2	Raku Singh,	.. Sepoy, 5th B I, ..	822-60	
3	Shahida Khan,	.. Sower, 12th B C, ..	760-64	
Sub-Overseers, (Civil).				
(Class A and B)				
(Second Year)				
1	Bhagat Ram,	A .. (Hoshiarpur,	.. ..	Appeared to the F W Department
2	Ram Lal,	A .. (Roorkhee,	.. ..
3	Abdullah,	A .. (Umballa,	.. ..
4	Berkat Rai,	A .. (Gujrat,	.. ..
5	Jugal Kishor,	A .. (Roorkhee,	.. ..
6	Kamhan Lal,	A .. (Bulandshahr,	.. ..
(First Year)				
1	*Shahida Ali,	B .. (Lucknow,	.. 1225-70	Prize for General Merit, Surveying and English.
2	*Bih Ram,	A .. (Faori,	.. 1179-69	
3	*Mirza Baksh,	A .. (Lahore,	.. 1125-67	
4	*Mostqim,	B .. (Dahomah,	.. 1116-66	
5	*Astar Singh,	B .. (Jhelum,	.. 1075-65	Prize for Drawing.
6	*Birendra Haq,	A .. (Meerut,	.. 1059-62	
7	Khatu Chand,	A .. (Roorkhee,	.. 1049-62	
8	Bamal Dhar,	B .. (Jaunpur,	.. 1015-60	
9	Gyau Chand,	A .. (Baraut,	.. 905-60	Prize for Urdu.

* selected for a second year's

1881.

	Name.	Rank and Corps, and where attached.	Age in years.	Prize.	Remarks.
10	Amrit Lal,	A.. Saharanpur,	201	50	
11	Lahfalleh Khan,	B.. Delhi,	277	50	
12	Raja Ram,	A.. Roorkhee,	249	50	
13	Ganga Ram,	A.. Delhi,	251	52	
14	Karim Baksh,	A.. Ludhiana,	260	52	
15	Bahal Singh,	A.. Deoband,	264	51	
16	Gopal Singh,	B.. Patiala,	259	51	
17	Nikka Singh,	A.. Patiala,	250	50	
18	Sita Ram,	A.. Roorkhee,	241	50	
19	Ram Chander,	A.. Roorkhee,	227	49	
20	Amir Singh,	A.. Roorkhee,	224	49	
21	Gobind Prasad,	A.. Moradabad,	232	49	
22	Abdul Haq,	A.. Roorkhee,	227	49	
23	Amamat Khan,	A.. Saharanpur,	219	48	
24	Mathra Das,	A.. Meerut,	213	48	
25	Mahab Lal,	A.. Meerut,	200	47	
26	Mahad Khan,	A.. Saharanpur,	193	47	
27	Ammuddin,	B.. Jandiala,	184	46	
28	Kandan Lal,	B.. Karnal,	165	43	
29	Abdur Razzaq,	A.. Saharanpur,	159	42	
30	Munshi Lal,	A.. Meerutnagar,	111	42	Failed
31	Asghar Haider,	B.. Meerut,	99	41	
32	Hanifa Baksh,	B.. Saharanpur,	93	39	
33	Muhammad Ismail,	B.. Saharanpur,	90	36	

1882.

CLASS.

(Full Marks, 1000)

1	Vyas, F W,	La Martiniere, Lucknow,	2200	62	Higher Standard Council of India Prize of Rs. 1,000 as the most distinguished Student. Cantley Gold Medal for Mathematics. Prize for Photography.
2	Lotter, D M.,	Bishop Cotton School, Simla,	2270	62	Tammann Gold Medal for best Engineering Design. Col Madley's Prize for Civil Engineering. Lieut. Harrison's Prize for Surveying.
3	Taylor, J M,	Bishop Cotton School, Simla,	2240	62	Higher Standard Extra Prize for Surveying. Qualified in Photography.
4	Athan, S.,	St. George's College, Mysore,	2237	62	Qualified in Photography.
5	Anthony, O T,	Mumwara School,	2130	61	General Madagan's Prize for Experimental Science.
6	Hibet, G. F.,	Maunerie School,	1906	64	
7	Leonard, J.,	Wood's Academy, Mysore,	1861	62	Qualified in Photography.
8	McLeod, O F,	St. George's College, Mysore,	1790	61	Prize for Drawing.

1882

No.	Rank and Corps, and where situated.	Marks secured.	Remarks.
UPPER SUBORDINATE CLASS			
(Full Marks, 1800)			
1	O'Reilly, J J, .. Lawrence Asylum, Benares,	1510 83	Higher Standard Prizes for General Merit, Mathematics, Civil Engineering, Drawing, and 'Kony Memorial' Prize for Estimating. Qualified in Photography
■	Wilkinson, F W, .. La Martiniers, Lucknow,	1500 83	Higher Standard Prizes for Surveying and Photography.
■	Edwards, C, .. Pte, 2nd Bn Royal Warwickshire Regiment, ..	1481 71	Higher Standard. Qualified in Photography
4	Obaloner, W, .. Lee-Serjt, 2nd Bn Royal Warwickshire Regiment,	1254 68	Higher Standard Major Bannard's Prize for Note Book
5	Chandra dyopadhyay, .. Metropoli Instn, Calcutta,	1157 54	Higher Standard. Qualified in Photography
6	Clarke, F J, .. Lawrence Asylum, Benares,	1145 68	Higher Standard.
7	Bansil Dhar, .. Barilly College, ..	1115 60	
■	Bans Madhav Malhi, .. Hight College, ..	1110 60	
■	Lynch, A, .. Pte, 2nd Bn Cheshire Regt,	1087 59	
10	Howers, O F, .. St. Fidelis' Schl, Munster,	1080 58	
11	Shriman Narain, .. High School, Farakhabad,	1059 57	
■	Waters, T, .. Lee-Corpl, 1st Bn South Lancashire Regiment, ..	1018 55	
12	Haridas Bhadon, .. Howrah Govt School, ..	998 53	
14	Lahna Singh, .. Upper School, Gujarat, ..	954 53	
■	Shan, .. Govt College, Lahore, ..	951 53	
16	Raparya Ram, .. Fatale College, ..	923 50	
LOWER SUBORDINATE CLASS			
(Full Marks, 1700)			
Sub-Overseers, (Military).			
■	Ahmad Ali, .. Sepoy, Sappers and Miners,	903 43	
2	Fani Shah, .. Bazar, 9th B C, ..	702 41	
Sub-Overseers, (Civil)			
(Class A = B)			
(Second Year).			
■	Shahid Ali, .. B., Lucknow, ..	.. ..	Appointed to the F. W Department.
■	Bali Ram, .. A. Faori, ..	.. ..
■	Miran Baksh, .. A. Lahore, ..	.. ..
4	Munqum, .. Dalhousie, ..	.. ..
■	Atar Singh, .. Jhelum, ..	.. ..
■	Singul Beg, .. Meerut, ..	.. ..
(First Year)			
1	Girdhari Lal, .. A., Amaghal, ..	1236 73	Prizes for General Merit, Mathematics and Civil Engineering.
2	Manak Chand, .. A., Wazirganj, ..	1162 68	Prize for Surveying
3	Kulthi Mal, .. A., Bahadurganj, ..	1140 68	

* Selected for a second year's instruction

1882.

No.	Name.	Rank and Corps, and where educated.	Mark obtained.	Remarks.
4	*Prem Narayan, A ..	Anupshahr,	1144 67	
5	*Zahurul Haq, A ..	Muzaffarnagar,	1087 56	
6	*Janna Dās, A ..	Dehli,	1082 54	
7	Gokal Chand, A ..	Rahimnagar,	1080 54	
8	Rām Svarup, A ..	Shikharabad,	1053 53	
9	Kadir Baksh, B ..	Hardoi,	1051 53	Prize in Drawing
10	Kapūr Singh, B ..	Lahore,	1048 53	Prizes for English and Roman-
11	Husam-ud-din, B ..	Rupat,	1041 51	and Urdu.
12	Anup Singh, A ..	Meerut,	1034	
13	Har Gobind, A ..	Roanah,	1000	
14	Buland Hay, A ..	Muzaffarnagar,		
15	Daulat Rām, B ..	Delhi,		
16	Janki Dās, A ..	Muzaffarnagar,		
17	Barn Lal, A ..	Deoband,	952 56	
18	Daulat Rām, A ..	Indora,	904 55	
19	Ajodhya Prasad, A ..	Muzaffarnagar,	900 54	
20	Chait Rām, A ..	Rohitpur,	900 54	
21	Muhammad Rām, A ..	Patna,	889 53	
22	Kanhu Lal, A ..	Patna,	889 53	
23	Shah Ahmad, B ..	Kohat,	885 53	
24	Indar Bhan, A ..	Agre,	877 53	
25	Nar Ahmad, A ..	Roorkee,	873 51	
26	Havaran Dās, A ..	Rahimnagar,	867 51	
27	Asad Rāp, B ..	Bareilly,	865 51	
28	Kalyan Singh, A ..	Roorkee,	842 50	Failed
29	Wahj-ud-din, B ..	Dalhouse,	838 49	
30	Dewan Singh, A ..	Meerut,	828 49	
31	Bahumillah, B ..	Delhi,	829 49	
32	Asad Ahmad, B ..	Agre,	822 48	
33	Ismael Khan, A ..	Roorkee,	778 46	
34	Bardhyan Singh, A ..	Roorkee,	746 44	
35	Zagham Hussain, B ..	Bahadur,	741 43	

1883.

CLASS.				
[Full Marks, 1000.]				
1	Curtis, O.,	Cotton School, Zamia,	2719 79	Standard
				India Prize of Rs. 1,000 as the most distinguished Student Cantley Gold Medal for Mathematics. Thomson Gold Medal for best Engineering Design. General Macleagan's Prize for Experimental Science. Col Medley's Prize for Civil Engineering. Lieut. Harrison's Prize for Surveying. Prizes for Drawing and Photography. Lieut. Colonel Brandreth's Prize for Miscellaneous Problems.

* Selected for a second year's instruction.

No	Name.	Rank and Corps, and where educated.	Age at graduation.	Remarks.
2	Ashton, A. H.,	.. Bp. Cotton School, Bunka,	2074-03	Higher Standard.
2	Chew, A. J.,	.. Bp. Cotton School, Hongkong,	2207-85	Qualified in Photography.
4	Rajeswar Mittal,	.. Patna College,	2117-61	Higher Standard. The Thomson Prize of Rs. 250. Qualified in Photography.
5	Wadley, H. J.,	.. La Martinière, Lucknow,	2110-61	Qualified in Photography.
■	Nihal Chand,	.. Govt. College, Lahore,	2068-80	Rahadur [redacted] Lal's Gold Medal.
7	Frett, C.,	.. Munsam School,	2032-59	
■	Mitchell, E. J.,	.. La Martinière, Lucknow,	2038-59	
9	Wilkinson, H.,	.. La Martinière, Lucknow,	1902-85	
UPPER [redacted] CLASS.				
(Full Marks, 1880).				
1	Harford, J.,	.. La Martinière, Lucknow,	1880-80	Higher Standard. Prizes for General Merit, Civil Engineering and Photography.
■	Harl Chand,	.. Government School, Gajrat,	1808-61	Higher Standard. Prize for Drawing. Qualified in Photography.
3	Stewart, T.,	.. Royal Fitch,	1448-79	Higher Standard. Prizes for Mathematics and 'Key Memorial' Prize for Estimating. Qualified in Photography.
4	Lane, G.,	.. Pte, 1st Bn Border Regt.,	1418-76	Higher Standard.
■	Allen, C.,	.. Pte, 2nd Bn Royal West Surrey Regiment,	1369-74	Higher Standard. Prize for Surveying.
5	Murphy, W.,	.. Private, 3rd Bn Connaught Rangers,	1836-72	Higher Standard. Qualified in Photography.
7	Amar Chand,	.. High School, Bosharnpur,	1810	Higher Standard.
■	Bensford, F.,	.. Sergt, 1st Bn East Lancashire Regiment,	1810-71	Higher Standard. Lieut.-Col. Brandreth's Prize for Books. Qualified in Photography.
8	Jagendra Nath Roy,	.. Cathedral Mission College, Calcutta,	1294-70	Higher Standard.
10	Pemberton, W.,	.. Sergt, 1st Bn East Lancashire Regiment,	1179-64	
■	Bal Gobind,	.. Govt. College, Agra,	1164-63	
12	Hayden, E.,	.. Pte, 4th Bn King's Royal Rifle Corps,	1161-63	
■	Horcham Das,	.. Mission School, Lahore,	1010-56	
14	Moe, C. W. B.,	.. Rochester,	1005-54	
15	Beas, G.,	.. Driver, B-4, R. H. A.,	980-53	
■	Bolton, H.,	.. Lieut.-Col, 1st Bn. Durham Light Infantry,	932-50	
■	Jamardham,	.. Patna College,	925-50	
■	Ricketts, G.,	.. Actg Bomb, H-3, R. A.,	923-50	
18	Brij Raj,	.. District School, Delhi,	889-46	Recommended, provided he obtains very good report in Appearance year.

1883.

No.	Names.	Ranks and Corps, and where obtained.	Mark obtained.	Prize.
LOWER SUBORDINATE CLASS.				
(For Merit, 1880).				
Sub-Overseers, (Military).				
1	Kamar Singh,	.. Sower, 12th B. C.,	..	} First
2	Khar Singh,	.. " 9th B. C.,	.. 686.39	
3	Hakim Khan,	.. Duffadar, 12th B. C.,	..	
4	Sher Khan,	.. Sower, 12th B. C.,	.. 457.27	
5	Muhammad	.. " 12th B. C.,	.. 489.26	
Sub-Overseers, (Civil).				
(Class A or B).				
(Second Year).				
1	Girdhari Lal,	A.. Annapoohar,	..	} Appointed to the P. W. Department.
2	Mamuk Chand,	A.. Munaffarnagar,	..	
3	Kalin Mah,	A.. Bahadurgarh,	..	
4	Prang Ramayan,	A.. Annapoohar,	..	
5	Saharai Hala,	A.. Munaffarnagar,	..	
6	James Das,	A.. Diba,	..	
(First Year).				
1	*Chand Prasad,	A.. Bahadurgarh,	.. 1236.79	Prize for General Merit.
2	*Munshi Lal,	A.. Bahad,	.. 1236.79	Prize for Surveying and Drawing.
3	*Shur Dyal Singh,	B.. Dehra,	.. 1210.77	Prize for Romanized Urdu and English.
4	*Khar Singh,	B.. Bahawalpur,	.. 1205.74	Prize for Mathematics and Civil Engineering.
5	*Jhanda Mal,	A.. Rawal Pindi,	.. 1236.73	
6	*Kundan Lal,	A.. Roorky,	.. 1234.72	
7	*Swapp Lal,	A.. Munaffarnagar,	.. 1192.70	
8	Ram Das,	A.. Delhi,	.. 1185.68	
9	Mohabbat Hussain,	A.. Delhi,	.. 1189.67	
10	Ghulam Shakir,	A.. Umballa,	.. 1113.45	
11	Hikbat Lal,	A.. Roorky,	.. 1102.65	
12	Har Narayan,	A.. Gurgaonwall,	.. 1099.66	
13	Mutaziddi Lal,	A.. Roorky,	.. 1049.62	
14	Gul Muhammad,	A.. Bulandshahr,	.. 1044.61	
15	Bhagwan Singh,	B.. Amritsar,	.. 1038.60	
16	Ram Nishu Pal,	B.. Lahore,	.. 1009.59	
17	Hoshiyar Singh,	A.. Bahadurgarh,	.. 988.58	
18	Ram Chander,	A.. Delhi,	.. 980.57	
19	Balla Ram,	A.. Ludhiana,	.. 949.55	
20	Hamir Singh,	B.. Roorky,	.. 948.55	
21	Lakshmi Ray,	A.. Bahadurgarh,	.. 941.53	
22	Shih Saran Das,	A.. Jullundur,	.. 940.53	
23	Bhagwan Das,	B.. Amritsar,	.. 939.52	
24	*Munshi Kadir,	A.. Roorky,	.. 889.50	

* Retained for a second year's instruction.

1883.

No.	Name.	Rank and Corps, and where obtained.	Age.	Prize.	Remarks.
25	Dharad Dhar,	A., Syanah,	.. 372	51	
26	Abdul Hasan,	B., Lucknow,	.. 317	43	
27	Jivna Lal,	A., Roohes,	.. 315	43	
28	Gopal Das,	A., Jullundur,	.. 302	47	
29	Him Sarav,	A., Gujrat,	.. 191	47	
30	Kalyan Singh,	A., Dabha,	.. 177	43	
31	Ahmad Hamid,	B., Campore,	.. 631	37	
32	Chheda Lal,	B., Bahadurpur,	.. 561	33	Failed.

1884.

JUNIOR CLASS					
(Full Marks, 2400).					
1	Fakir Chand,	.. Mair Central College, Alahabad,	.. 2450	71	Higher Standard. Council of India Prize of Rs. 1,000 as the most distinguished student. The Thomson Prize of Rs. 250. Cantley Gold Medal for Mathematics. General Macgregor's Prize for Experimental Science. Qualified in Photography.
2	Olanbach, O. C.,	.. Mumsore School,	.. 2215	67	Prize for Civil Engineering and Photography.
3	.. ..	.. Govt. College, Lahore,	.. 2104	63	Raj Bahadur Kunhya Lal's Gold Medal. Prize for Drawing.
4	Moran, W. A.,	.. La Martiniere, Lucknow,	.. 2111	61	
5	Fewell, E. J.,	.. Mumsore School,	.. 2091	61	Thomson Medal for best Engineering Design. Prize for Civil Engineering and Surveying. Qualified in Photography.
6	Roberts, F. W.,	.. Mumsore School,	.. 2076	60	
7	Niant, W.,	.. La Martiniere, Lucknow,	.. 1964	57	
8	Hamfram, H.,	.. St. Cotton School, Simla,	.. 1876	52	
9	Horst, C.,	.. Mumsore School,	.. 1704	43	
JUNIOR SUPERIOR CLASS					
(Full Marks, 1800).					
Special Class.					
1	Bennett, A.,	.. Sergt., 1st Bn. East Lancashire Regt.,	.. 1635	89	
2	Corryingham, G. H.,	.. Aeg. Bomb., G-A. R.H.A.,	.. 1624	86	
3	Hunter, J.,	.. Sergt., 2nd Bn. Northumberland Fusiliers,	.. 1632	84	
4	Clayton, H.,	.. Sergt., 8th Hussars,	.. 1406	76	Passed out as Apprentice on 15th September, 1883. Qualified in Photography. Prize for Photography.

TRADE MARK.

Rtg.		Rank and Corps and where obtained	Marks obtained	Remarks
Second Year.				
1	Gajjar Moh,	Dist. School, Hoshiarpur,	1420 75	Higher Standard. Prizes for General Merit and Mathematics.
2	Johnston, A.,	Ep. Cotton School, Simla,	1312 71	Higher Standard. 'Key Memorial' Prize for Estimating. Prize for Civil Engineering.
3	Lynch, [redacted]	Ang. Bombr., E-S, R. A.,	1306 68	Higher Standard. Prizes for Drawing.
4	Debi [redacted]	High School, Bareilly,	1300 67	Higher Standard. Prize for Estimating.
5	Dwarika Prasad,	High School, Farakhabad,	1190 64	Higher Standard.
6	Boyd, H. A.,	Sergt., 1st Bn. [redacted] Lancers,	1183 64	Local-Col. Broadbent's Prize for Note Books.
7	[redacted] Bah,	[redacted] Regiment,	1180 64	
8	Radhaya Lal,	Government College, Agra,	1161 63	
9	Chitwan Lal,	Bareilly College,	1143 62	Higher Standard.
10	[redacted] Singh,	District School, Amritsar,	1078 58	
11	[redacted] Singh,	Banars College,	1050 57	
12	[redacted] Singh,	District School, Amritsar,	1036 56	
13	[redacted] Singh,	[redacted] Asylum, Banars,	1024 55	
14	Amrita Banerji,	London Mission High School, Banars,	1023 55	
15	Chitra Sahai,	High School, Bareilly,	1020 55	
16	Mahar. Bah,	[redacted] Bah, Meerut,	996 54	
17	Lamb, A. J.,	Ep. Cotton School, Simla,	974 53	
18	Lynch, J.,	Ang. Bombr., A-S, R. A.,	948 51	Failed.
19	Ram, A.,	[redacted] Bah, Meerut,	932 50	
20	Rayle, H. J.,	[redacted] 4th Bn. King's Royal Rifle Corps,	906 46	
21	Saraventer Dita,	Highly College,	904 46	
22	Durrant, E.,	St. George's College, Meers,	881 45	
23	Beck, T.,	Sergt., 1st Bn. Border Regt.,	867 47	Failed.
24	Kandarpa Nath Rajara,	Presidency College, Calcutta,	859 46	
25	Sarathi Saxyal,	London Mission High School, Banars,	819 44	
(Special Class).				
1	Lee, L.,	2nd Corp., Royal Engin.,	1234 50	Higher Standard.
2	Beggs, J.,	Private, 9th Lancers,	1216 57	
3	Salvester, G.,	Corp., 1st Lancers Regt.,	1101 40	
4	Player, J.,	Driver, G-4, [redacted],	1012 45	
5	Patterson, E. T.,	Driver, K-B, R. H. A.,	910 30	Failed.
CLASH				
(Full Marks, 1900).				
Sub-Overman, (Military).				
	Ain Mohammed,	Serwr, 5th R. G.,	..	
	Muhammad Ali,	" 12th B. C.,	..	
	Bikhan Singh,	" 12th B. C.,	649 22	

1884.

No.	Name.	Rank and Corps, and where obtained.	Age	Remarks.
Sub-Officers, (Class).				
(Class A or B).				
1	Mitr Sen,	A .. Ballabgarh,	1220 70	Prize for General Merit, Civil Engineering, Surveying, and Katsmahing.
2	Sr Singh,	B .. W. J. Canal, Delhi,	1274 75	
3	Gopal Das,	A .. Shalke,	1281 75	
4	Gopi Nath,	A .. Umballa,	1149 68	Prize for Mathematics.
5	Kachhu Singh,	A .. Balasahar,	1182 67	
6	Garhans Lal,	A .. Saharsapur,	1117 66	
7	Nand Lal,	A .. Kaporthala,	1115 66	
8	Ghulam Haider,	B .. Delhi Provincial Division,	1111 65	Prize for Drawing
9	Achpal Singh,	A .. Roorkhee,	1101 64	
10	Abdul Ghafur,	B .. B & N Railway, Hoosangabad	1076 63	
11	Lakh Nay,	A .. Meerut,	1075 63	
12	Hardev Singh,	B .. Lahore Provincial Division,	1066 63	
13	Ahmed Hassan,	A .. Bijnor,	1064 63	
14	Chand Lal,	A .. Ludhiana,	1054 63	
15	Lalia Prasad,	A .. Balasahar,	1037 61	
16	Tara Chand,	A .. Umballa,	1037 60	
17	An Ram (1),	A .. Badson,	1019 60	
18	Dalbighi Rai,	A .. Amritsar,	1017 60	
19	Udho Prasad,	A .. Kasauli,	1014 60	
20	Kaushya Lal,	B .. W J Canal, Hapur,	1014 60	
21	Abdullah Khan,	B .. Cawnpore Local Works,	964 57	
22	Kamun Ali,	A .. Kasauli,	950 56	
23	Datt Ram,	A .. Patiala,	939 55	
24	Gulab Rai,	A .. Delhi,	933 55	
25	Mudho Ram,	A .. Patiala,	923 54	
26	Faldeo Bahal,	B .. Ganges Canal, Meerut,	911 54	
27	Abdul Samad,	A .. Mian Mir,	884 53	
28	Aakran Dda,	B .. Dera Ghazi Khan P. W.,	881 53	
29	Kashl Ram,	A .. Patiala,	862 51	
30	Sri Ram (2),	A .. Bijnor,	855 50	
31	Jang Bahadur,	A .. Meerut,	838 49	
32	Rita Ram,	A .. Bijnor,	834 49	
33	Purna Das,	A .. Delhi,	802 47	
34	Muhammad Ismail (1),	B .. Simla Imperial Works,	767 45	
35	Muhammad Ismail (2),	B .. Cawnpore Local Works,	747 44	
36	Chajja Singh,	A .. Roorkhee,	716 43	

1885.

ENGINEER CLASS
(Full Marks, 2400).

1	Phillips, E. A. W.,	.. Museum School,	2400 71	Thompson Gold Medal for best Engineering Design. Lieut.-Col. Brandreth's Prize for Civil Engineering. Prize for Drawing and Surveying. Qualified in Photography.
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1886.

No.	Name.	Rank and Corps, and where educated.	Marks obtained.	Percent.	Remarks.
2	Wadley, A. J.	La Martinière, Lucknow.	1869	57	Prize for Photography.
3	Lakshmi Prasad,	M. A. O. College, Aligarh	1880	56	Raj Bahadur Kanhya Lal's Gold Medal. Qualified in Photography.
4	Beechey, W.,	St George's College, Mississauga.	1774	61	
5	Bachman, A. M.,	St. Xavier's College, Calcutta.	1788	61	Failed. General Prize for
6	Schlesman, A. W.,	St. George's College, Mississauga.	1828	47	
7	McLeod, H. O.,	La Martinière, Lucknow.	1878	46	Failed.
8	Barns, J. D.,	England.	400	12	
UPPER SUBORDINATE CLASS.					
(Full Marks, 1880)					
1	Prayag Das,	Muz College, Aligarh.	1430	77	Higher Standard. Prize for General Moral and Civil Engineering.
2	Grant, J. A.,	Mechanics' School, Leam, England.	1421	77	Higher Standard. 'Easy Memorial' Prize for Behaving. Prize for Surveying. Qualified in Photography.
3	McDowell, W.,	Lee-Sergt., 2nd West India Regiment.			Higher Standard. Qualified in Photography.
4	Ridha Lal,	District School, Lahore.	1401	76	Higher Standard. Prize for Mathematics.
5	Fairweather, A.,	Corporal, 1st East India Regiment.			Higher Standard. Lieut-Col. Brandt's Prize for Books. Prize for Photography.
6	Hirt Lal,	Govt. Upper School, Delhi.			Higher Standard. Prize for Drawing. Qualified in Photography.
7	Upson, D.,	Lee-Corporal, 1st Buffs Regiment.	1367	74	Higher Standard. Qualified in Photography.
8	Siva Pada Das,	Mission School, Morat.	1337	73	Higher Standard.
9	Maya, C. A.,	La Martinière, Lucknow.	1317	71	Higher Standard. Qualified in Photography.
10	Chandi Prasad,	District School, Lahore.	1317	64	
11	Whiteman, F. W.,	Lee-Cpt., 2nd Scottish Rifles.	1153	61	
12	Patterson, E. T.,	Driver, E-B, R H A.	1126	61	
13	Scott, J.,	Corpl., 2nd Northumberland Fusiliers.			Qualified in Photography.
14	Cocksedge, E.,	Corporal, Royal Engineers.		60	Failed.
15	Bahamdar Nath,	Govt. Upper School, Delhi.		58	
16	Sellens, S.,	2nd Corpl., Royal Engineers.		57	
17	Rangt Singh,	Govt. Upper School, Delhi.	1027	56	
18	Durgapada Mahapatra,	London Museum Institution, Benares.	1017	55	
19	Morison, C.,	Corpl., 1st Bn. Rifle Bde.	940	51	Failed.
20	Northridge, T.,	Private, 2nd Northumberland Fusiliers.	905	51	
21	McGinn, H.,	Lee-Sergt., 1st East Lancashire Regt.	738	41	

1885.

No.	Name.	Rank and Corps, and where educated.	Mark Percent	Remarks.
Year, (Special Class).				
1	Lafson, G.,	.. Sergt., 4-1, Ia. De, R. A.	1355 73	} Higher Standard. } Quashed in Photography.
2	Smith, J.,	.. 2nd Corporal, Royal Regt.	72	
3	Hand, F.,	.. Private, 2nd Scottish Wiles.	69	
4	Lambert, V. E.,	.. 2nd Corporal, Royal Regt.	64	
CLASS.				
(Full Marks, 2500).				
Sub-Deacons, (Military)				
1	Sawan Singh,	.. Sepoy, 14th Satta,	1022 60	} Failed.
2	Rukam Singh,	.. Sepoy, 26th P. W. L.,	612 48	
3	Mahesh Prasad,	.. Sowar, 8th B. C.,		
4	Ram Singh,	.. Sepoy, 23rd P. M. I.,		
5	Hakim Hay,	.. Sowar, 8th B. C.,	690 41	
6	Haider Beg,	.. Sowar, 8th B. C.,		
Sub-Deacons, (Civil).				
(Class A or D).				
1	Munshi Ram (1), A.	.. Kapurthala,	1800 33	Prize for <i>Marit</i>
2	Bano Lal, A.	.. Saharanpur,	1800 77	Prize for <i>Mathematics</i>
3	Chhaya Mal, A.	.. Gurdaspur,	1291 75	Prize for Surveying
4	Kripa Ram, A.	.. Gurdaspur,	1278 75	Prize for Civil Engineering.
5	Mitr Sen, A.	.. Saharanpur,	1278 75	Prize for Languages.
6	Bhagwati Prasad, A.	.. Meerut,	1268 73	
7	Ram Prasad, A.	.. Meerut,	1225 72	Prize for Estimating.
8	Jwala Singh, B.	.. Mardan,	1190 70	
9	Mukht Lal, A.	.. Gurdaspur,	1185 70	
10	Kashu Ram, A.	.. Jallunder,	1171 66	
11	Ram Chander, A.	.. Meerut,	1161 69	
12	Bansi Lal, A.	.. Kapurthala,	1156 68	
13	Khairuddin, A.	.. Lahore,	1155 68	
14	Raghupat Hay, A.	.. Bulandshahr,	1146 67	
15	Munshi Ram (2), A.	.. Meerut,	1132 57	
16	Kurul Islam, B.	.. Amritsar,	1117 56	Prize for Drawing.
17	Harsaran Das, A.	.. Meerut,	1109 66	
18	Mizan Bahhak, B.	.. Amritsar,	1074 63	Failed.
19	Tula Ram, A.	.. Aligarh,	1064 60	
20	(Anwar Lal), A.	.. Kanam,	1059 62	
21	Tara Chand, A.	.. Patiala,	1058 62	
22	Muhammad Zakaria, A.	.. Saharanpur,	1046 62	
23	Mukta Prasad, B.	.. Meerut,	1039 61	
24	Prabhu Lal, A.	.. Rohtak,	1015 60	
25	Har Prasad, A.	.. Bulandshahr,	998 60	
26	Prithi Ram, A.	.. Umballa,	971 57	Failed.
27	Bhim Singh, A.	.. Patiala,	948 56	
28	Abdul Hadi, B.	.. Amritsar,	944 56	Failed.
29	Muhammad Kadir Khan, B.	.. Saharanpur,	941 56	
30	Babbar Singh, A.	.. Kapurthala,	935 56	
31	Gajar Mal, A.	.. Saharanpur,	935 56	

1885.

No.	Name.	Rank and Corps, and where obtained.	Mark gained.	Percent.	Remarks.
33	Mehmed Lal,	B .. Meer Mir,	..	389 50	Failed.
34	Mushtak Ahmad,	B .. Dehra,	..	384 50	
35	Altaf Hassan,	B .. Cawnpore,	..	380 49	
36	Kundan Lal,	A .. Sahitnagar,	..	753 48	
37	Talal Ram,	A .. Pindia,	..	610 38	
37	Her Prasad,	B .. Lahore,	..	609 56	

1886

ENGINEERING CLASSES
(Full Marks, 2450).

1	Rala Ram,	.. District School, Hoshiarpur,	2430 75	Higher Standard	Cornwall of India Prize of Rs. 1000 as the most distinguished Student. The Thomson Prize of Rs. 500 Cantley Gold Medal for Engineering. Lt.-Col. Brandreth's Prize for Civil Engineering General Maclean's Prize for Experimental Science. Qualified in Photography.
2	Shoo Nath,	.. Govt. College, Lahore,	2430 76	Higher Standard.	Rai Bahadur Kumbha Lal's Gold Medal. Qualified in Photography.
3	Natalia Sahai,	.. Meer Central College, Al- lahabad,	2426 71	Higher Standard	Qualified in Photography.
4	Wallston, C. H.,	.. St. George's College, Me- erwah,	2333 33	Prizes for Surveying, Drawing, and Photography.	
5	Anthony, A. D.,	.. Munro's School,	..	2184 63	
6	Baya Ram,	.. Govt. College, Lahore,	..	2181 63	Higher Standard.
7	Maya, A. E.,	.. La Martiniere, Lucknow,	..	2094 61	
8	Sabuk Chaudh,	.. Meer Central College, Al- lahabad,	..	2081 80	
9	Wall, B.,	.. La Martiniere, Lucknow,	..	2072 80	The [redacted] for best Engineering Design.

UPPER SUBORDINATE CLASS.

(Full Marks, 1850).

1	Raynolds, G.,	.. Lawrence M. Anjuman, Sum- ner,	1548 84	Higher Standard	Prizes for General Merit, Civil Engineering and Drawing. Qualified in Photography.
2	Zohiruddin Ahmed,	.. Govt. College, Lahore,	..	1487 79	Higher Standard. Qualified in Photography.
3	Bostable, J.,	.. Bomby, 6-1 West Dr., RA,	..	1400 78	
4	Syama Chandra Ghose,	.. Uttarpara Govt. School,	..	1398 75	Higher Standard. 'Key Memorial' Prize for Retaining.
5	Chaffa Singh,	.. Durgally College,	..	1393 75	Higher Standard.
6	Bunker, R.,	.. Lawrence M. Anjuman, Sum- ner,	..	1372 74	Higher Standard. Prize for Surveying. Qualified in Photography.

1886.

No.	Name.	Rank and Corps, and where obtained.	Age	Remarks.
1	Hari Bhuan Mukerji,	City College, Calcutta, ..	1857 78	Higher Standard, Prize for Mathematics.
2	Fraser, W. J.,	.. Gunner, E-4, R. A., ..	1849 78	
3	Kasi Pada Mahto,	.. Victoria School, Bhongir,	1849 78	
10	Kamta Prasad,	.. Agr. College,	1806 71	
11	Durrani, J. A. S.,	.. La Martinière, Lucknow, ..	1809 70	
12	O'Leary, O.,	.. La Martinière, Lucknow, ..	1864 68	
13	Bashar Nath,	.. District School, Delhi, ..	1863 68	
14	Jones, H. L.,	.. Corporal, 1st Worcestershire Regiment,	1846 67	Higher Standard.
15	Allardson, P.,	.. Lieut.-Colonel, 1st Suffolk Regiment,	1826 66	
16	Caldecott, E. J.,	.. Private, 2nd Norfolk Regt.,	1827 66	
17	McGoldrick, J. M.,	.. Pte., 6th Dragoon Guards,	1824 66	
18	Pigott, R.,	.. La Martinière, Lucknow, ..	1820 66	Qualified in Photography.
19	Brown, J. W.,	.. Corporal, Royal Engineers,	1811 65	Higher Standard. Lt.-Colonel (brevet) of the 1st Life Guards.
20	Holder, E.,	.. St. George's College, Monmouth,	1807 65	Higher Standard.
21	Bone, T.,	.. La Martinière, Lucknow, ..	1806 65	Higher Standard. for Photography.
22	Dial,	.. Govt. College, Benharper,	1806 64	
23	Booth, G.,	.. Gunner, F-1, R. A., ..	1806 63	
24	Barry, O.,	.. Lieut.-Colonel, 2nd Cheshire Regiment,	1812 60	
25	Sherridan, F.,	.. Gunner, N-5, R. A., ..	1812 60	
26	Collins, J.,	.. Honorary, 4-1, La Dr., R. A., ..	1810 60	Higher Standard.
27	James, W.,	.. Sergeant, 1st Royal Irish Fusiliers,	1806 60	
28	Jaswant Rai,	.. Mission School, Lahore, ..	1803 57	
1887 Year, (Special Class).				
1	Wilmington, G.,	.. Lieut.-Colonel, 2nd Warwickshire Regiment,	1831 53	
2	Gibson, C.,	.. Sergeant, Royal Engineers,	1843 76	
3	Leigh, A.,	.. Sergeant, 3rd Dragoon Guards,	1810 76	
4	Inghy, R.,	.. Sergeant, 1st East Lancashire Regiment,	1824 73	Higher Standard.
5	M.,	.. Lieut.-Colonel, 1st Leinster Regiment,	1850 66	
1888 Year, (Special Class).				
(Full Marks, 1700).				
Sub-Officers—(Class A or B).				
1	Abdel Leth,	.. Bookbinder,	1867 80	Prize for General Work, Drawing and Estimating.
2	Joshua Eckel,	.. Mount,	1806 80	Prize for Civil Engineering and Surveying.
3	Price Ld.,	.. A. ..	1820 76	
4	Jang Ld.,	.. A. ..	1815 76	

1886.

No.	Name.	Rank and Corps, and where educated.	Age and Grade.	Remarks.
	B ..	Meerut,	1285 72	Prize for Languages.
	A ..	Meerut,	1286 73	
	A ..	Saharanpur,	1287 74	
	B ..	Meerut,	1288 75	
9	Mohammad Ibrahim,	B Saharanpur,	1289 76	
10	Naram Singh,	A .. Patna,	1290 77	
11	Badr Singh,	A .. Meerut,	1291 78	
12	Raghunath Das,	A .. Bijnor,	1292 79	
13	Lal,	A .. Kanauj,	1293 80	
14	Jamni Prasad,	A .. Meerut,	1294 81	Prize for ..
15	Indr Singh,	A .. Ludhiana,	1295 82	
16	Nathu Ram,	A .. Umbaia,	1296 83	
17	Sri Ram,	B .. Bijnor,	1297 84	
18	Gopal Sahai,	A .. Meerut,	1298 85	
19	Kabir Singh,	A .. Ludhiana,	1299 86	
20	Mul Chand,	A .. Bijnor,	1300 87	
21	Har Swarup,	A .. Balasore,	1301 88	
22	Karim Ali,	A .. Meerut,	1302 89	
23	Nand Lal (1),	A .. Meerut,	1303 90	
24	Sahai,	A .. Meerut,	1304 91	
25	..	A .. Meerut,	1305 92	
26	..	B .. Balasore,	1306 93	
27	Lal,	B .. Rawal Pindi,	1307 94	
28	Swarup (2),	A .. Saharanpur,	1308 95	
29	Lal,	B .. Bari Banki,	1309 96	
30	Indrar AM,	A .. Luckhiana,	1310 97	
31	.. Ram,	A .. Meerut,	1311 98	
32	Bari Nath,	A .. Meerut,	1312 99	
33	Manohi Ram (1),	A .. Kanauj,	1313 100	
34	Kash Ram,	A .. Patna,	1314 101	
35	Munshi Ram (2),	A .. Saharanpur,	1315 102	
36	Sahai Ali,	B .. Aligarh,	1316 103	
37	Lakh Raj,	A .. Kanauj,	1317 104	
38	Munir Hassan,	B .. Faridkot,	1318 105	
39	Kundan Lal,	A .. Meerut,	1319 106	
40	Mun Prasad,	A .. Meerut,	1320 107	
41	Abdul Hadi,	B .. Meerut,	1321 108	
42	Nabi Baksh,	B .. Faridkot,	1322 109	
43	Nand Lal (2),	A .. Aligarh,	1323 110	
44	Bahai Singh,	B .. Meerut,	1324 111	
45	Ram Swarup (1),	A .. Meerut,	1325 112	
46	Swarup,	A .. Meerut,	1326 113	

1887.

CLARA

Mark, 2450).

1	Chanda Lal, P. D.,	Govt. College, Lahore,	2376 63	Higher Standard Council of India Prize of Rs. 1,000 as the most distinguished Student. The Thompson Prize of Rs. 500 for Drawing. Quarterly Photography.
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1887.

No		Rank and Corps, and where obtained.	Age	Prize
2	Schönmann, F. W.,	St. George's College, Mysore, ..	2244 65	Prize for Surveying and Photography
3	Shaput Rai,	Govt. College, Lahore, ..	2280 63	Cantley Gold Medal for Mathematics. Rai Bahadur Kunhya Lai's Gold in Photography
4	Taylor, H. B.,	Mumtaz School, ..	2160 62	Qualified in Photography
5	Blunt, E. A.,	La Martinière, Lucknow, ..	2167 63	Leut.-Col. Brand for Civil Engineering, Qualified in Photography.
6	Smith, W. F.,	La Martinière, Lucknow, ..	2125 62	General MacLagen's for Kapt. [redacted] for
7	Purves, K. B.,	La Martinière, Lucknow, ..	2104 61	The Thomson Gold Medal for best Engineering Design.
8	Ganga Ram,	Govt. College, Lahore, ..	2022 61	
9	Wellington, A. H.,	St. George's College, Mysore, ..	2044 60	
10	Anthony, C. E.,	Mumtaz School, ..	2054 60	
11	Basia Sarup,	Framford High School, ..	1963 57	
UPPER SUBORDINATE CLASS.				
(Full Marks, [redacted]).				
12	Old, J. H.	Durham School, Malot Tal, ..	.. ..	Higher Standard. [redacted] Burma as Apprentice Overseer before close of Season.
13	McLean, F. J.,	St. Peter's College, Agre, ..	.. ..	Qualified in Photography.
14	Jenkins, C.,	Lawrence M. Ashton, Ramwar, ..	1262 75	Higher Standard for General Mount and Surveying. Qualified in Photography.
15	Waylon, H.,	Capt. D-1, E. Artillery, ..	1871 74	Higher Standard. Prize for Drawing
16	Madho Dda,	District School, Amritsar, ..	1260 72	Higher Standard. Rai Bahadur Kunhya Lai's Silver
17	Jogendra Nath Mitra,	Government High School, Lahore, ..	1346 72	Higher Standard.
18	[redacted] W.,	Corporal, 1st King's Own Band, ..	1235 72	Higher Standard. Prize for Civil Engineering & Kny Memorial Prize for Mathematics
19	Odina, W. J.,	Lee-Corpl, 1st West Riding Regt., ..	1222 72	Higher Standard. Prize for Photography
20	Sau, Nath Sahas,	M. A. O. College, Aligarh, ..	1208 70	Higher Standard. Prize for Drawing
21	Gibbons, J. H.,	Lee-Sergt., 2nd Devonshire Regt., ..	1200 69	Higher Standard. Qualified in Photography.
22	Kunasing, J. C.,	Boys' High School, Lahore, ..	1256 68	
23	Howard, H.,	Gunner, S-1, London Dr. Royal Artillery, ..	1189 64	Prize [redacted]
24	Chajju Singh,	Government High School, Meerut, ..	1179 64	
25	Zilya Nand,	Government School, Delhi, ..	1175 64	
26	McCaun, C. H.,	La Martinière, Lucknow, ..	1163 63	
27	Murray, T.,	Gunner, G-A, E. H. Artillery, ..	1145 62	Leut.-Col. [redacted] for Best Books.
28	Parkins, A. R.,	St. George's College, Mysore, ..	1065 62	

1	Jagmohan	A..	Moorat,	1323	70	Behadur Kanhai Lal's Silver
2	Bhagwate Das (1), A	Bryner,		1310	70	Prize for Mathematics and
3	Katandeh Lal,	A.	Moorat,	1310	70	Civil Engineering
4	Makbul Hussain,	B.	Karnal,	1343		Prize for Estimating.
5	Abdul Haq,	B..	Lahore,	1342	73	
6	Chakher Chaud,	A.	Saharanpur,	1313	71	
7	Balram Singh,	B.	Kapurthala,	1301	71	
8	Bhagwate Das (2), A		Delhi,	1189	70	
9	Mahmood Anwar Ghani,	A	Lahore,	1183	70	
10	Abdul Ghafoor Khan,	A	Saharanpur,	1179	69	
11	Ghulam Ghani,	A.	Roorkee,	1170	69	
12	Hayat Khan,	B.	Jhelum,	1158	68	
13	Basma Khan,	A..	Lahore,	1151	68	
14	Muhtas Hussain,	A.	Roorkee,	1137	67	
15	Shiv Dayal,	B.	Jalandhar,	1135	67	
16	Sara Usha,	A.	Kapurthala,	1123	66	
17	Prithvi Lal,	A.	Moorat,	1107	65	
18	Noureddin,	B.	Shikot,	1100	65	
19	Tota Ram,	A.	Muzaffargarh,	1088	64	
20	Muhammad Ghaffar,	B.	Roorkee,	1088	64	
21	Muhammad Ali,	A.	Kailash,	1077	63	
22	Arjun Singh,	B..	Dera Ghazi Khan,	1073	63	
23	Bhagrat Singh,	A.	Saharanpur,	1043	62	
24	Ghulam Hussain,	B.	Shikot,	1038	62	
25	Kishori Lal,	B.	Muttra,	1034	62	
26	Nand Lal,	A..	Muttra,	1030	62	
27	Tangai Singh,	A.	Roorkee,	1041	61	
28	Durga Das,	A.	Delhi,	1028	61	
29	Ghulam Ali Khan,	A.	Lachhman,	1025	60	
30	Rami Bakht,	A..	Roorkee,	1015	60	
31	Harkish,	A.	Roorkee,	1011	60	
32	Gyan Shankar,	A..	Roorkee,	1008	59	
33	Gopal Chaud,	A..	Jalandhar,	990	58	
34	Zugham Hussain,	A..	Saharanpur,	989	58	
35	Jwala Prasad,	A.	Muzaffargarh,	978	58	
36	Bhyan Lal,	B.	Moorat,	971	57	

No	Name	Rank and Corps, and where obtained.	Gold Medal	Remarks
37	Shimabhu Nath,	A... Meerut Barracks,	.. 840.55	
38	Dharam Lal,	A... Bulandshahr,	.. 831.55	
39	Kundan Lal,	A... Rohtas,	.. 804.55	
40	Ram Chand,	A... Delhi,	.. 700.41	Failed.

1888.

ENGINEER CLASS.
(Full Marks, 3500).

1	Perry, H. W.,	St. Paul's School, Daryeding,	2749.79	The Thomason Gold Medal for best Engineering Design. Lt. Col Brandreth's Prize for Civil Engineering. General Macdonald's Prize for Experimental Science. Professor Surveying and Drawing. Qualified in Photography.
2	Englestone, J.,	Manchester School,	2715.78	Higher Standard Council of India Prize of Rs. 1,000. Cantley Gold Medal for Mathematics and Prize for Photography.
3	Knight, W. E.,	La Martinière, Lucknow,	2363.60	} Qualified in Photography. Rai Bahadur Kanhya Lal's Gold Medal. Qualified in Photography.
4	French V O.,	Bishop Cotton School, Simla,	2349.67	
5	Devi Das,	Govt. College, Lahore,	2338.65	
6	Brama Charan Ghose,	Mow College, Allahabad,	2335.64	
7	Sharpe, P. St. J.,	La Martinière, Lucknow,	2187.63	
8	Bishan Sarup,	Govt. College, Lahore,	2186.61	
9	Narvik, H. L.,	Sp. Cotton School, Simla,	2097.60	
10	Ganesh Das,	Govt. College, Lahore,	1975.67	
11	Furves, F. M.,	La Martinière, Lucknow,	1871.67	
12	Makhan Lal,	Govt. College, Lahore,	1864.54	

CLASS.

(Full Marks, 1000)

1	Müller, F. O. T.,	La Martinière, Lucknow,	1474.87	Higher Standard Prize for General Merit. Thomason Medal for Civil Engineering. Prize for Drawing, Surveying, Photography and 'Key Memorial' Prize for Estimating.
2	Surendra Nath	Lahore,	1335.73	Higher Standard Cantley Silver Medal for Mathematics, and Rai Bahadur Kanhya Lal's Silver Medal. Qualified in Photography.
3	Misra Singh,	Jaypore,	1225.71	Higher Standard Qualified in Photography.
4	Ganesh Lal (I),	Rohtas,	1224.70	Higher Standard
5	Jolly, W. F.,	La Martinière, Lucknow,	1223.70	Qualified in Photography.

1899.

No.	Name	Rank and Corps, and where obtained.	Age	Remarks
6	Copeman, N.	.. Lieut.-Col., 2nd Norfolk Regiment,	1892	Higher Standard. Qualified in Photography.
7	Taj Ram,	.. Abbottabad,	1890	
8	Brown, C. E.	.. La Martinière, Lucknow,	1888	Higher Standard.
9	Blackborough, A.	.. Private, 2nd Norfolk Regt.	1888	
10	Parke, F. W.	.. Gunner, D.-A., R. H. A.,	1890	Lt.-Col. Broadbent's Prize for Note Books.
11	Ganguli Lal (S).	.. Bikaner,	1881	
12	Sri Krishan,	.. Meerut,	1880	
13	Ellis, B. J.	.. St. Peter's College, Agra,	1888	
14	Beckett, J. H. W.	.. Private, The Outramers,	1888	Qualified in Photography.
15	Bal Mokand,	.. Delhi,	1879	
16	Durga Prasad,	.. Roorkh,	1865	
17	Hardinge, A.	.. St. Peter's College, Agra,	1880	
18	Cramp, E. A.	.. La Martinière, Lucknow,	1887	
19	Johnson, A. B.	.. La Martinière, Lucknow,	1881	
20	Raghuvar Dayal,	.. Bandah,	1890	
21	Jordan, C. J.	.. Gunner, L.-A., Royal Art,	1887	
22	D'Amott, B.	.. St. Peter's College, Agra,		
23	Raghuvar Nath,	.. Fullender,		
24	Praman Day,	.. Bokerhock,		Failed
25	Marten, H. W.	.. Roorkh,		

Year, (Special Class).

1	Packer, A.	.. Lieut.-Sgt., 1st Horse Regt.	1887	Higher Standard
2	Hooge, L. T.	.. Corporal, The Outramers,	1880	

LOWER SUBORDINATE CLASS.

(Full Marks, 2700)

Sub-Ordinate—(Class A or B)

1	Devi Sahay,	A .. Roorkh,	1888	Prize for General Merit, Raj Bahadur Kishan Lal's Silver Medal Prize for Mathematics, Civil Engineering, Surveying, Estimating and Languages.
	Mithanand Yash,	B .. Roorkh,	1888	Prize for Drawing
	Floor Ali Khan,	A .. Roorkh,	1890	
	Amir Bakht,	M .. Ludhiana,	1888	
	Kundan Lal,	B .. Jhabwar,	1888	
	Gajda Mal,	A .. Bahawalpur,	1881	
	Wazir Chand,	A .. Jhabwar,	1880	
	Lal Ulla,	M .. Ludhiana,	1880	
	Munshi Ram,	A .. Ludhiana,	1880	
10	...	A .. Meerut,	1874	
11	Banu Dhar,	A .. Meerut,	1888	
12	Ram Chand (1),	A .. Meerut,	1888	
13	...	A .. Bahawalpur,	1881	
14	...	A .. Rohtak,	1887	
15	...	A .. Ludhiana,	1888	
16	Tilok Singh,	M .. Ludhiana,	1888	

1899.

No.	Name.	Rank and Corps, and where educated	Age	Remarks.
17	Gurindan Lal, A.	Boorhan, ..	1104 65	
18	Sandar Singh, A.	Amritsar, ..	1084 65	
19	Jwala Swarup, B.	Umballa, ..	1084 65	
20	Harnam Singh, A.	Jalandhar, ..	1082 65	
21	Harnam Lal, A.	MusaFarwagar, ..	1082 64	
22	Sandar Lal, B.	Muzra, ..	1076 64	
23	Wazir Ali, A.	Jalandhar, ..	1031 63	
24	Karta Krishna, B.	Hoshiarpur, ..	1017 63	
25	Abdul Aziz, A.	MusaFarwagar, ..	1016 63	
26	Atar Singh, A.	Boorhan, ..	1007 63	
27	Harnam Singh, A.	Jahanspur, ..	969 59	
28	Dhan Lal, B.	Muzra, ..	962 59	
29	Bakhtawar Singh, B.	Muzra, ..	940 57	
30	Sri Ram, A.	Fateh, ..	934 55	
31	Naurang Chand, A.	Kapurthala, ..	900 53	
32	Narpal Singh, B.	Muzra, ..	874 51	
33	Asif-ul-Haq, A.	Boorhan, ..	869 48	Failed.
34	Syed Wasif Hussain, B.	Rawal Pindi, ..	745 44	
35	Shyam Sandar, B.	Ferozepore, ..	712 42	
36	Mangal Singh, A.	Ludhiana, ..	608 38	
37	Mukhtas Lal (2), B.	Umballa, ..	738 45	
38	Ram Chand (2), B.	Muzra, ..	696 41	Expelled.

1899

CLAS.

(Full Marks, ..)

1	Chanda Lal, ..	St. Stephen's College, Delhi, 2552 71	Higher Council of India Prize of Rs. 1,000. The Thomson Prize of Rs. 250 General Macleagan's Prize for Experimental Science Qualified in Photography
2	Muller, H. A. C., ..	Mr. Sheehan's, Munrovia, 2486 71	La-Cof Brundage's Prize for Civil Engineering Qualified in Photography
3	Chanda Lal, P. C., ..	Govt. College, Lahore, 2462 70	Higher Standards Quality Gold Medal for Mathematics Bahadur Krishna Lal's Medal Qualified in Photography
4	Ives, H. W. M., ..	Mr. Sheehan's, Munrovia, 2258 68	The Thomson Gold Medal for best Engineering Design. Prize for Photography.
5	Miri, ..	M. Anglo-Oriental College, Aligarh, ..	2230 65
6	Notes, F., ..	La Martiniere, Lucknow, ..	2229 64
	W. G., ..	La Martiniere, Lucknow, ..	2201 64
	Fateh, ..	Govt. College, Lahore, ..	2060 60
	O'Neill, W. M., ..	Mr. Sheehan's, Munrovia, 1996 56	

1899.

No.	Name.	Rank and Corps, and where educated.	Mark obtained	Remarks.
10	Jeffries, A. E.,	.. Hip Cotton School, Simla,	1888/89	} Failed.
12	Ryan, F.,	.. St. George's College, Mysore,	1894/95	
UPPER SUBORDINATE CLASS.				
(For Marks, 1898).				
1	Chitt, F. A.,	.. Lieut.-Capt., 2nd Dragoon Guards,	1876/83	First Prize Thomson Silver Medal for Civil Engineering Prize for Drawing. Lieut.-Col. Blomfield Prize for Note Books Qualified in Photography
2	Gmy, R.,	.. Capt., 1st Lancers Regt.,	1441/78	Higher Standard Cautley Silver Medal for Mathematics Prize for Surveying. Qualified in Photography
3	Long, H.,	.. Lieut.-Surgt., 5th Lancers, ..	1484/77	Higher Standard Prize for Photography
4	Haycock, H. B.,	.. Corporal, 5th Lancers, ..	1306/70	Higher Standard
5	Guraim, J. G.,	.. St. George's College, Mysore,	1294	Higher Standard
6	Collins, C.,	.. Capt., 2nd Dragoon Regt., ..	1223/70	Higher Standard
7	Dharm Singh,	.. Lahore,	1282/68	Higher Standard Rai Bahadur Kanbha Lal's Qualified in Photography
8	Goodman, W.,	.. St. George's College, Mysore,	1276/69	Qualified in Photography.
9	Hogendra Nath Brown,	.. Allahabad,	1272/69	
10	Langhorne, H. J.,	.. Le Martinier, Lucknow, ..	1265/69	} Higher
11	Beckhamer Nath,	.. Wazirpur,	1230/68	
12	Schewbury, F. E.,	.. Boys' High School, Lahore,	1247/64	} Higher Standard 'Key Memorial' Prize for Bookbinding. Higher Standard.
13	McGinn, T.,	.. Corporal, Royal Engineers,	1247/68	
14	Carruthers, A.,	.. Lieut.-Capt., 2nd Scottish Rifles,	1222/67	
15	Kimbory Mohan Chatterjee,	.. Bankura,	1222/67	
16	Hachman, F. A.,	.. Le Martinier, Lucknow, ..	1220/68	
17	McCart, S.,	.. Le Martinier, Lucknow, ..	1184/64	
18	Paden Finner,	.. Ajmere,	1187/64	
19	Lloyd, C.,	.. Lieut.-Capt., 1st East Surrey Regiment,	1186/63	
20	Laxmi Shastri,	.. Agra,	1156/63	
21	Tarleton, F. J.,	.. St. Peter's College, Agra, ..	1025/64	
22	Hampton, S. H.,	.. St. Peter's College, Agra, ..	1018/65	
23	McCormack, A.,	.. Lieut.-Capt., 2nd Royal Fusiliers, .. Jubbulpur,	1016/65	
24	Mukhammad Yusuf,	.. Jubbulpur,	1006/64	
25	Conroy, F.,	.. St. George's College, Mysore,	988/64	
26	Johnson, C. W.,	.. Surgt., 2nd Liverpool Regt.,	967/62	

1050

1886

No.	Name	Institution	Prize	Description
1	Sayin, Behard Chakravarti,	Dacca College,	2780-75	Higher Standard India Prize Rs. 1,000. Thomson Prize of Rs. 200 Castley Gold Medal for Mathematics. Thomson Gold Medal for best Engineering Design. Prizes for Civil Engineering Surveying Qualified in Photography.
2	Allum, F. W.,	Munster School,	2886-75	Experimental Qualified in Photography.

1890.

No.	Name.	Rank and Corps, and where stationed.	Age	Remarks.
2	Radhika Mania,	.. St. Stephen's College, Delhi	2420 71	Higher Standard. Raj Bahadur Kumbha Lal's Gold Medal. Qualified in Photography.
4	Jehangir Vacha,	.. High School, Bombay	2050 68	Higher Standard
5	Venkatam, K.	.. St. Peter's College, Agra	2075 69	Prize for Photography
4	Dold Dayal,	.. London Mission College, Benares	2212 67	Higher Standard.
7	Dever, R. W.	.. La Martinière, Lucknow	2090 67	Prizes for Drawing and Surveying.
6	Shore, J. W.	.. St. George's College, Munscoria	2195 64	
9	Rampal Das,	.. Agra College	2177 63	
10	Raghobhar Mal,	.. Lahore College	1950 67	
11	Kiki Kumar Ray,	.. Patna College	1945 67	
12	Otto, F. W.	.. La Martinière, Lucknow	1940 57	
13	Norman, C.	.. Munscoria School	1204 65	Absent six months.
UPPER SUBJUNCTIVE CLASS.				
(Full Marks, 1890).				
1	Lyons, W.	.. Bomb., 20th Field Bty. R. A.	1635 68	Higher Standard. Prizes for General Merit, Note Books and Photography.
2	Ahmad Das,	.. Lahore	1470 60	Higher Standard. Raj Bahadur Kumbha Lal's Silver Medal. Prizes for Surveying. Qualified in Photography.
3	Byham, J.	.. Lieut.-Col., 2nd Detachment	1471 60	Higher Standard. Thomson Silver Medal for Civil Engineering. 'Key Memorial' Prize for Estimating.
4	Ladd Hasan,	.. Delhi	1430 77	Higher Standard
5	Johnson, S. W.	.. Lieut.-Col., 1st East Kent	1419 76	Higher Standard. Qualified in Photography.
6	Mul Raj,	.. Ludhiana	1394 75	Higher Standard
7	Edwards, H.	.. Ag. Br., 12th W. A. Dn., R. A.	1384 75	Higher Standard
8	Ram Dayal,	.. Nowari	1280 75	Higher Standard. Contingent Silver Medal for Mathematics.
9	Harman Das,	.. Aligarh	1065 74	Higher Standard.
10	Mustafa Hassan,	.. Karnal	1049 72	
11	Wilkinson, J. M.	.. La Martinière, Lucknow	1030 72	Higher Standard. Prizes for Drawing. Qualified in Photography.
12	Chanda Lal Kaper,	.. Jullunder	1000 71	Higher Standard.
13	Jackson, L. J.	.. La Martinière, Lucknow	1000 69	Higher Standard. Qualified in Photography.
14	Gill, W. T.	.. Bomb., 20th Fd Bty., R. A.	1260 62	Higher Standard.
15	Khan, J.	.. Ag. Bomb., M. R. H. Art.	1250 60	
16	Scott, T. C.	.. Lieut.-Col., 1st East Kent	1244 67	
17	Megawra, J.	.. Lieut.-Col., 2nd E. Sussex	1235 67	
18	McGrim, E.	.. St. George's College, Munscoria	1220 66	Higher Standard.
19	Russell, E.	.. St. George's College, Munscoria	1214 66	
20	Kelly, A.	.. La Martinière, Lucknow	1160 67	

1890.

No.	Name	Rank and Corps, and where obtained.	Roll No.	Points	Remarks.
21	Girdhari Lal,	.. Jullunder,	.. 110181		Higher Standard
22	Nobin Krishna Rai,	.. Calcutta,	.. 111190		
	Gorman, J.,	.. St. George's College, Mysore,	.. 102250		
24	Montgomery, M.,	.. Corporal, 2nd Highland L. Infantry,	.. 107668		
25	Hodkins, C. J.,	.. Mr. Sheehan's School, Mysore,	.. 101265		
LOWER SUBGRADUATE CLASS.					
(Full Marks, 1900).					
Sub-Ordinary—(Class A).					
1	Tara Chand,	.. Kapurthala,	.. 120079		Prize for General Education. Silver Medal and for Mathematics.
2	Muhammad Umar,	.. Umballa,	.. 120078		
3	Shagwan Sahay,	.. Meerut,	.. 120077		
4	Balwant Singh,	.. Ludhiana,	.. 120076		
5	Faramshri Das,	.. Bareilly,	.. 120075		Prize for Civil Engineering and Mathematics.
	Furap Singh,	.. Ludhiana,	.. 120074		Prize for Surveying.
	Dewan Chand,	.. Kapurthala,	.. 120073		
6	Sekhrin Das,	.. Ludhiana,	.. 120072		
7	Natcha Singh,	.. Gopnawala,	.. 120071		
10	Bhola Singh,	.. Ludhiana,	.. 120070		
11	Satowad Singh,	.. Ludhiana,	.. 120069		
12	Harnam Das,	.. Jullunder,	.. 120068		
13	Lachhman Singh,	.. Kapurthala,	.. 120067		
14	Bhrama Singh,	.. Patiala,	.. 120066		
15	Lahar Singh,	.. Ferozepore,	.. 120065		
16	Chand Khan,	.. Umballa,	.. 120064		
17	Said Muhammad,	.. Delhi,	.. 120063		Prize for Drawing.
18	Pashora Singh,	.. Sahibot,	.. 120062		Prize for Languages.
19	Bachha Mal,	.. Sahibot,	.. 120061		
20	Akbar Singh,	.. Jullunder,	.. 120060		
21	Barn Mal,	.. Meerut,	.. 120059		
22	Murti Dhar,	.. Meerut,	.. 120058		
	Ram Chand,	.. Ludhiana,	.. 120057		
	Devi-Ullab,	.. Umballa,	.. 120056		
23	Kali Sahay,	.. Meerut,	.. 120055		
	Raj Indar Gw,	.. Ludhiana,	.. 120054		
	Kurpa Ram,	.. Kapurthala,	.. 120053		
	Amar Nath,	.. Gurdaspur,	.. 120052		
	Nihal Chand (1),	.. Delhi,	.. 109735		
	Waste Khan,	.. Delhi,	.. 109734		
	Shah Lal,	.. Dalsandahar,	.. 109083		
	Nihal Chand (2),	.. Patiala,	.. 98658		
	Dhanpat Rai,	.. Hoshiarpur,	.. 98657		
	Ram Das,	.. Kapurthala,	.. 973		
	Balig Ram,	.. Lahore,	.. 973		
	Nabi Baksh,	.. Amritsar,	.. 966		
	Girdhari Lal,	.. Kapurthala,	.. 966		

TRAVEL EXP.

1891.

No.	Name.	Rank and Corps, and where educated.	Amount paid.	Remarks.
ENGINEER CLASS.				
(First Marks, 3450).				
1	Narendra Kumar Mitra,	Presidency College, Calcutta.	3320 78	Higher Standard. Council of India Prize of Rs. 1,000. The Thomason Prize of Rs. 250. Cantley Gold Medal for Mathematics (General Marking) Prize for Experimental Science. Qualified in Photography.
2	Burke, C. B.,	La Martinière, Lucknow.	3343 77	Higher Standard. Prizes for Surveying and Photography.
3	OConnell, R.,	La Martinière, Lucknow.	3444 71	Thomason Gold Medal for Engineering Design.
4	Mathews, R. T.,	La Martinière, Lucknow.	3439 70	Higher Standard. Qualified in Photography.
5	Jenardan Joshi,	Barnaby College,	3405 70	Higher Standard. Rai Bahadur Kumbha Lal's Gold Medal. Qualified in Photography.
6	Levi, F. M.,	La Martinière, Lucknow.	3396 69	Col. Brandreth's Prize for Engineering. Qualified in Photography.
7	Hughes, R.,	Mr. Sheehan's, Munrovia.	3350 68	Prize for Drawing.
8	Mellor, C. B.,	La Martinière, Lucknow.	3250 63	
9	O'Brien, G. J.,	La Martinière, Lucknow.	3195 64	
10	Gaunde Rao,	Mission College, Lahore.	3174 63	
11	Wajum, R. C. R.,	Munrovia School.	3168 63	
12	Edwards, C. J. S.,	La Martinière, Lucknow.	3100 61	
13	Taylor, J. M.,	Mr. Sheehan's, Munrovia.	3008 59	
14	Gilmora, H. G.,	La Martinière, Lucknow.	1957 57	
15	Bam Feroz,	Govt. College, Lahore.	1770 51	
16	Koth Raj,	Barnaby College.	-	
OTHER SUPERGRADUATE CLASS.				
(First Marks, 1850).				
1	Hart, F. W.,	Loc-Cpl, 4th King's Royal Rifles.	1737 56	Higher Standard. Prize for General Merit. Cantley Silver Medal for Mathematics. Thomason Silver Medal for Civil Engineering. 'Key Memorial' Prize for Estimating. Col. Brandreth's Prize for Note Books. Prizes for Drawing, Surveying, and Photography.
2	Alex. Singh,	Procurement.	1594 56	Higher Standard. Rai Bahadur Kumbha Lal's Silver Medal. Qualified in Photography.
3	Walsh, R.,	Lt.-Cpl, 2nd Scottish Rifles.	1510 52	
4	Bolton, C.,	Sergeant, 15th East Dev. B. A.	1500 51	
5	Chapman, C.,	Loc-Cpl, 4th King's Royal Rifles.	1464 78	Higher Standard. Qualified in Photography.

1901.

No	Name.	Rank and Corps, and where educated.	Age	Grade	Remarks.
6	Moloney, M.	Corporal, 1st Royal Irish Fusiliers	1400	79	
7	Laddell, W.	Loc-Serge, 1st Duke of Cornwall's L. Infy.	1407	76	Higher Standard.
8	Murayam Das,	Gurdaspur,	1398	76	
9	Shardian, H. J.	Asst. Bomber, 19th Field Bty. R. A.	1878	74	
10	Kashl Prasad,	Lahore,	1342	78	Higher Standard. Qualified in Photography
11	Roy Chand,	Bahrampur,	1342	78	
12	Miller, H. R. S.	St. Peter's College, Agre,	1819	71	
13	Ashmun, J. H.	Sgt., 1st Bn., Rifle Brigade,	1338	70	
14	Hassan Lal,	Gurdaspur,	1381	69	Higher Standard.
15	O'Reilly, E.	St. George's College, Mysore,	1228	68	
16	McQuibban, R.	L.-Cpl. 2nd Oxfordshire L.I.	1219	68	
17	Hadghins, F.	Mr. Shastan's, Mysore,	1200	65	
18	Thomas, F. H.	Loc-Sgt., Sch. II Lancers,	1197	64	Higher Standard.
19	Russell, C.	L.-Cpl. 1st Scotch Bde,	1185	64	
20	Crosley, H.	Mr. Shastan's, Mysore,	1141	63	
21	Rambleson, H. R.	Corpl., A. Battery, R. H.A.	1141	63	Higher Standard.
22	Wylie, B.	St. George's College, Mysore,	1054	67	
23	Richardson, F. J.	Serge, 5th R. I. Lancers,	1004	67	
24	Anderson, J.	Cpl., 1st Southern Dn., R. A.	...	...	Recommended
25	Buller, A. O.	R.-Cpl., 2nd West Yorkshire,	...	...
Lowes					
(Full Marks, 1900).					
Sub-Over score—(Class A or B)					
1	Kashl Lal,	Balandshah,	1296	62	Prize for Merit. Was Bahadur Kunbya Medal. Prizes for Mathematics, Civil Engineering, Surveying, and Col. Brandreth's Prize for
2	Muhammed Latif, A	Ghatapur,	1284	74	
3	Mamraj Singh, A	Karnal,	1263	74	
4	Gokal Singh, A	Umballa,	1230	72	
5	Kashl Lal, A	Locknow,	1220	72	
6	Mundan Singh, A	Delhi,	1210	71	
7	Amir Chand, A	Ludhiana,	1200	71	
8	Kapur Chand, A	Fateh,	1207	71	
9	Basant Singh, A	Gurdaspur,	1199	71	
10	Pyrar Lal, A	Bahrampur,	1190	70	
11	Quaim Ali, A	Ludhiana,	1195	70	
12	Atma Ram, A	Umballa,	1170	69	
13	Jagat Ram, A	Jalandhar,	1165	69	
14	Devi Dal, A	Ludhiana,	1160	68	Prize for Behar Lal's Prize for Languages.
15	Babu Ram, A	Amritsar,	1145	67	
16	Ramji Das, A	Delhi,	1141	67	
17	Ahmad Baksh, A	Ludhiana,	1137	67	
18	Leckman Das, A	Kapurthala,	1125	66	

1891.

No.	Name.	Rank and Corps, and where obtained.	Prize	Remarks.
19	Bishan Singh,	A.. Umballa,	1124/00	
20	Ganpat Rai,	A.. Ludhiana,	1122/00	
21	Fateh Muhammad, B.	A.. Lahore,	1112/05	Prize for Drawing.
22	Jagan Nath,	A.. Meerut,	1100/05	
23	Harun Daa,	A.. Gurdaspur,	2108/05	
24	Khachi Ram,	A.. Sialkot,	2099/05	
25	Bur Singh,	A.. Umballa,	1081/04	
26	Shar Singh,	B.. Gujranwala,	1091/04	
27	Ram Sahai,	A.. Gujranwala,	2070/03	
28	Chanda Lal,	A.. Ulwar,	1060/03	
29	Kesar Singh,	B.. Ferozepore,	1040/01	
30	Mala Ram,	A.. Ferozepore,	1001/00	
31	Munshi Ram,	A.. Kapurthala,	997/00	
32	Hootyar Singh,	A.. Bhatnagar,	994/00	
33	Abdai Qadir,	A.. Lahore,	982/00	
34	Gardas Singh,	A.. Kapurthala,	980/00	
35	Harun Daa,	A.. Ludhiana,	960/00	
36	Shree Singh,	B.. Agra,	610/00	

1892.

RESERVE CLASS.

(Full Marks, 2400).

1	Fotina, J M'Y.	.. La Martinie, Lucknow, ..	2400/71	Higher Standard. Council of India Prize of Rs. 1,000. Cautley Gold Medal for Mathematics. Thomson Gold Medal for best Engineering Design. Col Brown's Silver Medal for Civil Engineering. Silver Medals for Surveying and Photography.
2	Gillman, J W,	.. La Martinie, Lucknow, ..	2470/72	Silver Medal for Drawing. Qualified in Photography.
3	West, C H,	.. La Martinie, Lucknow, ..	2390/68	Higher Standard. General Macgregor's Silver Medal for Experimental Science. Qualified in Photography.
4	Miller, W C W.	.. La Martinie, Lucknow, ..	2100/61	} Qualified in Photography.
5	Sharpe, W. S.	.. La Martinie, Lucknow, ..	2087/59	
6	O'Connell, M. J.	.. St. Peter's College, Agra,	2004/55	
7	Scott, P G.	.. La Martinie, Lucknow, ..	1881/50	

UPPER SUBORDINATE CLASS

(Full Marks, 2800).

1	Fatheron, J. H.	.. Sergt., 2nd Dragoon Guards	2800/00	Higher Standard. Silver Medal for General Mark. 'Key Memorial' Silver Medal for Mathematics. Silver Medal for Surveying. Qualified in Photography.
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1892.

No.	Name.	Rank and Corps, and where obtained.	Age in years.	Remarks.
2	Bartlett, W. F.,	.. Lieut.-Col., 7th Hussars, ..	143771	<i>Higher Standard.</i> Thomson Silver Medal for Civil Engineering. Silver Medal for Drawing.
3	Tinker Das,	.. Delhi, ..	141476	<i>Higher Standard.</i> Cantley Silver Medal for Mathematics. Rai Bahadur Kumbha Lal's Silver Medal. Qualified in Photography.
4	Cooper, W. H. A.,	.. Bomber, 68th Field Battery, B. A., ..	185075	<i>Higher Standard.</i> Silver Medal for Photography.
5	Guth, H.,	.. Lieut.-Col., 1st East Lancashire Regt., ..	184079	
6	Taylor, H. J. D.,	.. Lieut.-Col., 2nd Somersetshire L. I., ..	184179	
7	Kern Chand,	.. Jullunder, ..	183478	
8	Hira Khan,	.. Lahore, ..	183078	Qualified in Photography.
9	Nattha Singh,	.. Subedar, ..	182568	<i>Higher Standard.</i>
10	Judge, E. J.,	.. Lieut.-Col., 2nd M. O. S. Borden, ..	125663	
11	Hamilton, W.,	.. Lieut.-Col., 6th R. I. Lancers, ..	122560	
12	Frederick Lal,	.. Meerut, ..	120565	
13	Carr, P.,	.. Sergeant, Q. Battery, R. E. A., ..	118758	
14	Burns, F.,	.. St. George's College, Manchester, ..	114562	
15	Otto, T. A.,	.. Lt. Marston, Lucknow, ..	112568	
16	Herman Singh,	.. Delhi, ..	111960	
17	Barton, H. E.,	.. Lieut.-Col., 2nd R. Scots Fusiliers, ..	111260	
18	Gallen, P.,	.. Sergeant, 2nd Scottish Rifles, ..	..	Recommended
19	Bugby, H. W.,	.. St. Fidele's School, Manchester, ..	..	Accepted appointments in the Survey Department.
20	Freeman, J. A.,	.. St. Fidele's School, Manchester, ..	..
21	Sullivan, J.,	.. St. George's College, Manchester, ..	..	Withdrawn.

(Full Marks, ..)

Sub-Officers—(Class III and B).

1	Arya Singh,	A.. Ludlow, ..	141568	Rai Bahadur Kumbha Lal's Silver Medal for General Math. Silver Medals for Mathematics, Civil Engineering, and Surveying.
2	Nor Muhammad Khan,	A.. Umballa, ..	138360	
3	Waryan Singh,	A.. Gurdaspur, ..	134779	
4	Gobind Lal,	A.. Delhi, ..	133478	
5	Jalut Prasad,	A.. Delhi, ..	133378	
6	Abneshi Das,	A.. Ludlow, ..	132378	Silver Medal for Drawing.
7	Karung Chand,	A.. Kapurthala, ..	132478	
8	Ghulam Qadir,	A.. Umballa, ..	129778	
9	Raid Ram,	A.. Jullunder, ..	128874	

YEARLY LIST.

1892.

No.	Name	Rank and Degree, and where obtained.	Year of Birth	Year of Graduation	Remarks
11	Abdul Aziz, A.	Delhi,	1882	72	
12	Kishan Lal, A.	Jampur,	1884	72	San Bahadur Bohari Silver
13	Ram Lakhan Lal, A.	Delhi,	1885	72	
14	Abdul Aziz, A.	Montgomery,	1886	72	
15	Ram Lal, A.	Delhi,	1887	72	
16	Ganga Sahai, A.	Delhi,	1888	70	
17	Bohari Lal, A.	Lahore,	1889	69	
18	Bohari Lal, A.	Lahore,	1890	69	
19	Jivan Lal, A.	Moradabad,	1891	69	
20	Jivan Lal, A.	Gurdaspur,	1892	69	
21	Panna, A.	Sahaspur,	1893	69	
22	Hassan, A.	Salonahar,	1894	67	
23	Muhammad Ibrahim, A.	Kohat,	1895	67	
24	Nabi Haider Khan, A.	Kohat,	1896	66	
25	Muhammad Sadiq, B.	Kohat,	1897	65	
26	Singh, A.	Ludhiana,	1898	63	
27	Daniel Ram, B.	Umballa,	1899	63	
28	Umar Singh, B.	Bugser,	1900	63	
29	Ram Ram, A.	Ludhiana,	1901	63	
30	Arvin Chand, A.	Jalandhar,	1902	63	
31	Lachman Chand, A.	Umballa,	1903	63	
32	Wazir Ahmad, A.	Ludhiana,	1904	61	
33	Rachonathas Rai, A.	Uttar State,	1905	61	
34	Lal, A.	Sahaspur,	1906	60	
35	Arif, A.	Amritsar,	1907	60	
36	Arif, A.	Amritsar,	1908	60	
37	Syed Zaki Hassan, A.	Moradabad,	1909	60	Dead.

1893.

No.	Name	Rank and Degree, and where obtained.	Year of Birth	Year of Graduation	Remarks
1	Chakraborty, L.	St. Stephen's College, Delhi,	1874	78	Higher Standard English, Mathematics, and Science. Thomas Prize of Rs. 1,000 for the best Essay on the History of the Gunpowder. Qualified in the Science of the Gunpowder.
2	Venkataram, A. C.	St. Peter's College, Agra,	1875	77	Higher Standard English, Mathematics, and Science. Silver Medal for the best Essay on the History of the Gunpowder. Qualified in the Science of the Gunpowder.
3	Stanley, V.	Mumtaz School,	1876	78	Higher Standard English, Mathematics, and Science. Silver Medal for the best Essay on the History of the Gunpowder. Qualified in the Science of the Gunpowder.

1493.

No.	Name.	Rank and Corps, and where educated.	Age	Prize.
4	Chara Chandra Ray,	Presidency College, Calcutta,	21	Higher Standard. Rai Bahadur Kanhya Lal's Gold Medal. Silver Medal for Photography.
5	Phul Chand Rao,	Dawood College, Lucknow,	21	Higher Standard. Qualified in Photography.
6	McIver, N. A. H.,	Manoan School,	21	
7	Udai Ram,	St. Stephen's College, Delhi,	21	
8	Juansunder Nath Chatterjee,	Pune College,	21	
9	Palla Chandra Roy,	Dacca College,	21	
10	Hita Ram,	Mayo School of Arts, Lahore,	21	
11	Talbot, F. K.,	St. John's College, Agra,	21	
12	Jagat Narain,	St. Stephen's College, Delhi,	21	
Second Class.				
(Full Marks, 1889).				
1	Symons, R. G.,	1st Lieut., 10th R.I. Lancers,	21	Higher Standard Silver Medal for General Merit. 'Memorial' Silver Medal for Drawing. Champion Silver Medal for Civil Engineering. Medal for Drawing Surveying. Photograph.
2	Dunlop, J.,	Sgt., 1st Bn. East Lancashire,	21	Higher Standard. Qualified in Photography.
3	Gill, W. J.,	1st Bn. Lancashire,	21	
4	Crosby, D.,	1st Bn. Lancashire,	21	
5	Speiser, C. C.,	Capt., 2nd Bn. Manchester,	21	Higher Standard. 'Key Memorial' Prize for Photography.
6	Tilley, W. R.,	Sgt., "B" Coy, R. H. A.,	21	
7	Hilton, H. F.,	1st Bn. Lancashire,	21	Higher Standard. Centley Silver Medal for Mathematics, & Rai Bahadur Kanhya Lal's Silver Medal.
8	Simart, H. R.,	Sgt., 2nd Bn. Northumberland Fusiliers,	21	
9	Parmanand Das,	Aligarh,	21	
10	Winnam, G.,	Sgt., 1st Bn. Royal West Kent,	21	
11	Kaur Singh,	Lahore,	21	
12	Nagho Rama,	Gurdaspur,	21	
13	Webb, A. W.,	St. Joseph's Seminary, Yarn Tal,	21	Higher Standard.
14	Bayliss, C.,	Sgt., 1st Bn. Wiltshire,	21	
15	Chavun Lal,	Delhi,	21	
16	McLure, H. W.,	Sgt., 2nd Bn. Derbyshire,	21	Higher Standard. Photograph.
17	Wadley, E. W.,	1st Bn. Lancashire,	21	Higher Standard.
18	Kingsford, D. B.,	1st Lieut., 10th (Queen's) Lancers,	21	
19	Dillingham, W. B.,	Sgt., 1st Bn. Hampshire,	21	
20	Noorung Mait,	Meerut,	21	
21	Smith, F.,	Adj. Quar., 1st Field Coy., R. A.,	21	

1893.

No.	Name.	Rank and Corps, and where obtained.	Age when granted.	Remarks.
23	Farnon, R. J.,	.. St. Peter's College, Agm.	1074.25	
24	Gilbert, A.,	.. Lieut-Col, 1st Bn Cheshire	1080.55	
LOWER SUBORDINATE CLASS.				
(Full Marks, 1890).				
Sub-Overseers—(Class A and B)				
1	Talal Rām,	A. Exportable,	.. 1838.79	■ ■ ■ ■ ■ Knabys Jai's Medal for General Silver Medal for Surveying
2	Muhammad Anis, A.	Guzrat,	.. 1839.70	Silver Medal for Civil Engineering and Drawing, ■ ■ ■ ■ ■ for Typotype.
3	Rām Gopal,	A.. Delhi,	.. 1839.70	
4	Dwarka Das,	A.. Delhi,	.. 1839.70	
5	Jefar Ali,	A.. Ludhiana,	.. 1839.70	
6	Ajodha Nath,	A.. Gujrat,	.. 1839.70	Silver ■ ■ ■ ■ ■
7	Rām Prasad,	A.. Saharanpur,	.. 1839.70	
8	Gūran Ditta,	A.. Lahore,	.. 1839.70	
9	Bawa Rām,	A.. Hissar,	.. 1839.70	
10	Chandrup Lal,	A.. Gurdaspur,	.. 1839.70	
11	Raj Kishor,	B.. Benares,	.. 1839.70	
12	Sarb Dayal,	A.. Ludhiana,	.. 1839.70	
13	Shambhu Nath,	A.. Bijnor,	.. 1839.70	
14	Sohel Singh,	A.. Jalandhar,	.. 1839.70	■ ■ ■ ■ ■ Bahadur Bahari Lal's Silver Medal for Languages.
15	Fateh Singh,	A.. Ludhiana,	.. 1839.70	
16	Udharu Das,	A.. Delhi,	.. 1839.70	
17	Kany Bahari Lal,	A.. Umballa,	.. 1839.70	
18	Rām Chandra,	A.. Saharanpur,	.. 1839.70	
19	Habib Ali,	■ ■ ■ Gurdaspur,	.. 1839.70	
20	Sardar Lal,	■ ■ ■ Munafaragar,	.. 1839.70	
21	Bura Singh,	A.. Ludhiana,	.. 1839.70	
22	Sham Lal,	A.. Delhi,	.. 1839.70	
23	Ramesh Singh,	A.. Delhi,	.. 1839.70	
24	Munshi Rām (1),	A.. Jalandhar,	.. 1839.70	
25	Munshi Rām (2),	A.. Ludhiana,	.. 1839.70	
■	Kishan Lal,	A.. Delhi,	.. 1839.70	
27	Rām Das,	A.. Ludhiana,	.. 1839.70	
■	Nattha Singh,	A.. Lahore,	.. 1839.70	
29	Mai Chand,	A.. Hissar,	.. 1839.70	
30	Abdul Hamid,	A.. Umballa,	.. 1839.70	
■	Shankar Lal,	A.. Gurdaspur,	.. 1839.70	
32	Gurdatt Singh,	A.. Gurdaspur,	.. 1839.70	
■	Rām Lal,	A.. Umballa,	.. 1839.70	
34	Kadir Baksh,	A.. Umballa,	.. 1839.70	
35	Siraj Narayan,	A.. Unao,	.. 1839.70	
36	Diwan Chand,	A.. Jalandhar,	.. 1839.70	
■	Hasak Chand,	A.. Saharanpur,	.. 1839.70	
38	Ahmad Hussain,	B.. Moradabad,	.. 1839.70	Failed
39	Banwan Lal,	A.. Hissar,	.. 1839.70	Withdrawn.

1894.

No.	Name.	Work and Corps, and where obtained.	Year.	Remarks.
ENGINEER CLASS.				
(Full Marks, 3200)				
1	Fitzpatrick, T. B.,	St. George's College, Mysore, 1893	2345	Higher Standard. Counsel of India. Prize of Rs. 1,000. Silver Medal for Surveying. Qualified in Photography.
2	Kanhaiya Lal,	St. Stephen's College, Delhi, 1893	2345	Higher Standard. Thomson Prize of Rs. 250. General MacLagan's Prize for Experimental Science. Qualified in Photography.
3	Jotindra Mohan Ray,	Presidency College, Calcutta, 1893	2345	Mr. Bahadur Kanhaiya Lal's Gold Medal. Qualified in Photography.
4	Rashid, C. M.,	St. Peter's College, Agre, 1894	2345	Higher Standard. Silver Medal for Photography.
5	Arobinda Prakash Mukherjee,	Agre College, 1894	2345	Higher Standard. Castley Gold Medal for Mathematics. Qualified in Photography.
6	Collins, M. B.,	Munro's School, 1894	2345	Major Chibson's Silver Medal for Civil Engineering. Silver Medal for Drawing. Qualified in Photography.
7	Roberts, J. M.,	Munro's School, 1894	2345	Thomson Gold Medal for best Engineering Design.
8	Vaughan, F. B.,	La Martinière, Lucknow, 1894	2345	
9	Ward-Jones, A. W.,	La Martinière, Lucknow, 1894	2345	
10	Christie, E. S.,	Munro's School, 1894	2345	
11	Hardings, D. H.,	St. George's College, Mysore, 1894	2345	
12	Cooper, W. C.,	Bishop Cotton School, Simla, 1894	2345	
13	Miller, C. H. A.,	La Martinière, Lucknow, 1894	2345	
SUBORDINATE CLASS				
(Full Marks, 1600)				
1	Botterill, R. O. G.,	Sergt, 1st Bedford Regt, 1893	1645	Higher Standard. Silver Medal. General Thomson's Silver Medal for Civil Engineering. Medal for Estimating. Medal for Surveying. Qualified in Photography.
2	Wilkinson, W. L.,	La Martinière, Lucknow, 1893	1645	Higher Standard. Silver Medal for Drawing. Qualified in Photography.
3	Dennett, C. T.,	Adj. 2nd Field Battery, R. A., 1893	1645	Higher Standard. Qualified in Photography.
4	Wallace, R. J.,	Lon. Sgt, 2nd Bedford Regt, 1893	1645	Higher Standard. Silver Medal for Photography.

1884.

No.	Name.	Rank and Corps, and where educated.	Age at entry.	Remarks.	
5	Kerwick, F. J.	.. Agt. Bomb, 40th Field Battery, R.A.,	1816.78	Higher Standard	
6	Roberts, H. T.	.. Mr Sheehan's, Manchester,	1285.71		
7	O'Brien, E.	.. La. Martindale, Jackson,	1278.71		
8	Altken, A.	.. Corpl, 2nd Royal Sussex Regt.,	1270.71	Higher Standard	
9	Kerwick, F.	.. Bomb, "B" Bty, R.H.A.,	1197.67		
10	Sykes, J. W.	.. Bomb, "C" Bty, R.H.A.,	1197.67		
11	Murray, J. E.	.. Sergt., 1st Royal Fusiliers,	1197.67	Higher Standard. Has Silver Medal.	
12	Br Bull Dn.	.. Lahore,	1197.67		
13	Churney, L.	.. Meerut,	1196.66		
14	Pagett, O. E.	.. Mr Sheehan's, Manchester,	1177.62	Failed in quality. Courtesy Gifted in Mathematics. Qualified in Photography.	
15	Shah, L.	.. Banikot,	1163.66		
16	Mooney, T.	.. Lieut-Sgt., 2nd Royal Dub. in Fuziliers,	1159.66		
17	Singh Bm.	.. Lahore,	1154.64	Accepted appointment in Survey Department. Withdrew.	
18	Bhat Bhat.	.. Umballa,	1066.66		
19	Johnstone, W. R.	.. Lieut-Sgt., 2nd Oxford L.I.	942.53		
20	Sarda, J.	.. Agt. Bomb, 6th Field Battery, R. A.,	..	Accepted appointment in Survey Department. Withdrew.	
21	Williams, P.	.. St. G. College, ..	..	
22	Hodgins, F. M.	.. Mr. Sheehan's, Manchester,	..		
LOWER SUBORDINATE CLASS					
(Full Marks, 1880).					
Sub-Officers—(Class A and B)					
1	Udai Ram, A.	.. Hindustan,	1408.84	Has Silver Medal for Merit in Mathematics and Drawing. Has Silver Medal for Civil Eng.	
2	Sant Ram, A.	.. Jalandhar,	1381.61	Has Silver Medal for Civil Eng.	
3	Ajias Ram, A.	.. Delhi,	1362.81		
4	Behar Singh, A.	.. Gurdaspur,	1350.80		
5	Ratan Lal, A.	.. Delhi,	1345.80		
6	Hira Singh, A.	.. Patiala,	1338.80		
7	Sardar Narayan, A.	.. Delhi,	1317.78		
8	Shanker Das (S), A.	.. Lahore,	1290.77		
9	Mahab Singh, A.	.. Lahore,	1288.76		
10	Gemah Ram, A.	.. Balasore,	1274.76	Silver Medal for Surveying.	
11	Lal Bah, A.	.. Kharidola,	1262.74		
12	Shagat Ram (S), A.	.. Sialkot,	1248.74		
13	Raghunath Das, A.	.. Patiala,	1241.74		

YEARLY LIST.

	Names	Rank and Corps, and where obtained	Mark	Point
1	Sant Singh, A.	Lahore.	1281	72
2	Salub Chand, A.	Umballa.	1210	72
14	Lachman Das, A.	Amritsar.	1203	72
37	Toj Ram, A.	Delhi.	1191	71
38	Karam Chand, A.	Deer Ghaz Khan.	1188	71
19	Ghalya Ram, A.	Ludhiana.	1178	70
30	Kidar Nath, A.	Muzaffargarh.	1169	70
31	Bhagat Ram (1), A.	Ludhiana.	1160	69
22	Dalip Singh, A.	Ludhiana.	1111	68
33	Shri Chand, A.	Delhi.	1143	68
34	Shankar Das (1), A.	Kapurthala.	1142	68
35	Nalia Ram, A.	Gujranwala.	1131	67
36	Shitab Rai, A.	Agra.	1130	67
37	Habib Baksh, A.	Lahore.	1136	66
38	Mani Nath, A.	Sahrawan.	1108	66
39	Shankar Prasad, A.	Sahrawan.	1089	64
40	Sham Lal, A.	Moradabad.	1058	62
41	Ram, A.	Umballa.	1048	61
42	Bhagwan Das, A.	Patiala.	987	59
43	Aminat Ali, A.	Sahrawan.	945	57
44	Abdul Rahman, B.	Sahrawan.	945	57
45	Fakir Muhammad, A.	Jullundur.	945	57
46	Bahadur Singh, A.	Patiala.	945	57
47	Brij Lal, A.	Jullundur.	901	54
48	Wahid Ram, A.	Patiala.	887	44
49	Muhammad, B.	Umballa.	887	44
50	Chai Ram, A.	Muzaffargarh.	887	44
51	Ram Sarup, A.	Moradabad.	887	44
52	Ram Chand, A.	Gurdaspur.	887	44
53	Manish Behal, A.	Delhi.	887	44

Final for the Year

Expelled.

CLASS			
1. Mark, 1000			
1	Kailash Chandra, P. K. K. College, Ben- gali, ...	3478	70
Higher ... of Rs. 1,000. Thomson Prize of Rs. 200 Cantley ... for Ma- gan's ... Benson.			
2	Joyce, R. W., Bishop's School, Poona, ...	3385	70
Thomson Gold Medal for best Engineering Design. Major Cuthbert's Silver Medal for Civil Engineering. Silver Medals for Drawing, Survey- ing and Photography.			
3	Bhisham Swamy, ...	3317	68
Higher Standard. Rai Bahadur Swamy Lal's Gold Medal.			

1895.

No.	Name.	Rank and Corps, and where obtained	Marks gained	Percent	Remarks.
4	Wells, W. R.,	.. St. Joseph's College, Darjeeling, ..	2295	60	Higher Standard. Qualified in Photography.
5	Morgan, J. G.,	.. Doreton College, Madras, ..	2178	64	
6	Sata Chandra Maalik,	.. Presidency College, Calcutta, ..	2142	65	Qualified in Photography.
7	Wells, H. B.,	.. St. Joseph's College, Darjeeling, ..	2036	61	
8	Edgar Bose,	.. Minor Central College, Allahabad, ..	2042	60	
9	Atmaram,	.. Govt. College, Lahore, ..	2032	60	Qualified in Photography.
10	Lee, F. H.,	.. La Martiniere, Lucknow, ..	1938	67	
11	Howard, S. W.,	.. La Martiniere, Lucknow, ..	1882	67	
12	Symons, R. V.,	.. La Martiniere, Lucknow, ..	1827	64	
13	Abusash Chandra Ma-	.. Agre College, ..	1619	64	
14	Indra Bahay,	.. Barabuli College, ..	1467	69	
15	Bahub Dayal,	.. Queen's College, Banar, ..	1439	69	

UPPER SUBORDINATE CLASS.

(For Marks, 1895).

1	Connall, B. B.,	.. La Martiniere, Lucknow, ..	1800	60	Higher Standard Silver Medal for General Merit. Qualified in Photography.
2	Algh, A. D'A.,	.. Lance-Sergeant, 1st Bn. R. Welsh Fusiliers, ..	1593	60	Higher Standard. Silver Medals for Drawing and Photography.
3	Smclair, W.,	.. St. Joseph's Seminary, Nai ni Tal, ..	1274	70	Higher Standard. Qualified in Photography.
4	Taylor, J.,	.. Sergeant, 1st Bn. Gordon Highlanders, ..	1172	70	Higher Standard Silver Medal for Surveying. Qualified in Photography.
5	O'Farrell, R.,	.. Sergeant, 2nd Bn. R. Fusiliers, ..	1069	70	Higher Standard. Thomson Silver Medals for Civil Engineering. Qualified in Photography.
6	Hardinge, W. R.,	.. By Cotton School, Ram, ..	1069	70	
7	Hall, T. C.,	.. Lee-Sergeant, 1st Bn. Norfolk Regiment, ..	1036	70	Higher Standard.
8	Soni Singh,	.. Mulk, ..	1333	76	Higher Standard. Rai Bahadur Kunhya Silver Medal.
9	McKenna, G. P. W.,	.. Squadron Q-M, Sergeant, 11th Hussars, ..	1200	72	Higher Standard. Qualified in Photography.
10	Etches, E. K.,	.. Ag. Bomb, 2nd Co. East Lo., R. A., ..	1273	73	
11	Bailey, H.,	.. Ag. Bomb, "A" Battery R. H. A., ..	1255	73	Higher Standard. 'Kearney Memorial' Silver Medal for Estimating.
12	Buhambur Den,	.. Subaltern, ..	1227	70	Cantley Silver Medal. Mathematics.
13	Bullivan, H.,	.. Sergeant, 2nd Bn. Royal Irish, ..	1170	70	Higher Standard.
14	Ganpat Lal Gupta,	.. Subaltern, ..	1170	70	
15	Byan, F.,	.. Corporal, 7th Co. Southern Co., R. A., ..	1170	70	Higher Standard.

1885.

No.	Name.	Rank and Corps, and where stationed.	Height	Weight	Remarks.
■	Mitchell, A. J.,	.. Lieut-Sergt, 1st Bn. Norfolk Regiment,	.. 1172	67	} Higher Standard.
■	Boermal, W. A.,	.. La Martinique, Lucknow,	.. 1180	66	
■	Buggie, E.,	.. St. Fideles's School, Mauritius,	.. 1120	64	
19	Abdur Rahman,	.. Amritsar,	.. 1118	64	
■	Rahmatullah,	.. Multan,	.. 1010	64	
21	Kota Mal,	.. Allahabad,	.. 963	55	
■	O'Connor, A. M. B.,	.. Lieut-Sergt, 1st Bn. E. Irish Fusiliers,	.. 948	54	
Lower Subordinate Class					
(Full Marks, 1875).					
Sub-Overseers—(Class A or B)					
1	Ghulam Nabi,	A. Lucknow,	.. 1404	04	■ Private Rank Lal's Silver Medal for General Merit. Silver Medal for Civil Engng.
■	Tirath Ram,	A. Kanpur,	.. 1299	04	Silver Rank Civil Engineering Rank Bahadur Bahari Lal's Silver Medal for English.
3	Kali Ram,	A. Rank ,	.. 1229	00	Silver Medal for Mathematics.
4	Abdul Rahman,	A. Amritsar,	.. 1242	79	
5	■ Rank ,	A. Lahore,	.. 1232	77	
■	Genda Mal,	A. Umballa,	.. 1273	76	
■	Thakur Das (1),	■ Jullundur,	.. 1271	76	
■	Kachi Ram,	A. Umballa,	.. 1268	74	
■	Kidar Nath,	A. Bijnor,	.. 1263	72	
■	Mehand Lal,	A. Ludhiana,	.. 1248	74	
11	Higazi Singh,	A. Ludhiana,	.. 1246	72	
12	Ram Narayan,	A. Delhi,	.. 1220	72	Silver Medal for Surveying.
13	Raman Muhammad,	A. Lahore,	.. 1208	72	
14	Shibcharan Lal,	A. Barilly,	.. 1198	71	
■	Ali Baksh,	A. Shikot,	.. 1177	70	
■	Ghari Ram,	A. Meerut,	.. 1175	70	
■	■ Rank Das,	■ Jahanpore,	.. 1161	70	
■	Thakur Das (2),	■ Delhi,	.. 1160	69	
19	Ganpat Ram,	A. Jullundur,	.. 1146	68	
20	Rasbir Ahmad,	A. Mysore,	.. 1140	67	Silver Medal for Drawing.
21	Ara Ram,	A. Umballa,	.. 1141	68	From for Xerotype.
22	Hooti Prasad,	A. ■ Rank ,	.. 1140	68	
23	Nadho Ram,	■ Kutha,	.. 1138	68	
24	Dalpat Ram,	A. Patiala,	.. 1127	67	
25	Kanti Nath,	A. Saharanpur,	.. 1121	67	
26	Udho Ram,	A. Delhi,	.. 1118	67	
■	Dewan Chand,	A. Noida,	.. 1117	67	
28	Bihari Lal,	A. Meerut,	.. 1110	67	
■	Rishi Singh,	A. Kanpur,	.. 1092	66	

1895.

No.	Name.	Rank and Corps, and where educated.	Mark obtained.	Remarks.
1	Kitchhai Singh, A.	Cawnpore,	1043.53	
2	Nasir Hossain, A.	Nabha,	1044.53	
3	Gachar Ali, A.	Hymn,	1036.67	
4	Bhag Singh, B.	Amritsar,	1034.67	
5	Shen Nath, A.	Karnal,	1031.62	
6	Shukla Singh, A.	Meerut,	1018.61	
7	Akber Hossain, A.	Allahabad,	1007.49	
8	Abdul Shakar, A.	Allahabad,	994.69	
9	Jai Narayan, A.	Karnal,	985.67	
10	Muhammad Dan, B.	Lahore,	925.55	
11	Rustum Ali, B.	Panaha,	879.53	
12	Basa Mal, A.	Patala,	876.36	Sick. Failed to qualify.
13	Baldoo Prasad, A.	Amritsar,	..	Expelled.
14	Days Narayan, A.	Bawal,	..	

1896.

EXAMINER CLASS.

(Full Marks, 2400).

1	Scott, E. A.,	.. La Martiniere, Lucknow, ..	2557	Higher Standard Council of India Prize Rs 1,000 Thomson Gold Medal for best Engineering Design. Lieut.-Col Clibborn's Silver Medal for Civil Engineering Silver Medal for Surveying and Drawing. Qualified in Photography.
2	Bachubhai Prasad Verma,	.. Meer Central College, Allahabad, ..	2535.75	Higher Standard Thomson Prize of Rs. 250 Cantley Gold Medal for Mathematics. General Maclean's Prize for Experimental Science. Qualified in Photography.
3	Crauder, G. W.,	.. Museum School, ..	2217.00	Higher Standard.
4	Triloka Nath,	.. St. Xavier's College, Calcutta, ..	2204.97	Higher Standard. Raj Bahadur's Medal.
5	Mohit Kanta Sen,	.. Presidency College, Calcutta, ..	2267.67	Photography. Higher Standard. Qualified in Photography.
6	Ata Hossain,	.. Patna College, ..	2145.63	
7	Rangendra Nath Sen Gupta,	.. Patna College, ..	2130.63	
8	Akhil Chandra Chatterji,	.. City College, Calcutta, ..	2045.00	
9	Jagan Narain,	.. Agra College, ..	2018.65	Qualified in Photography.
10	Sada Silva Mena,	.. Coomaraswamy College, Lucknow, ..	1916.40	
11	O Gorman, C.,	.. St. George's College, Newcastle, ..	1851.50	

1896.

No.	Name.	Rank and Corps, and where obtained	Mark obtained.	Remarks.
12	Munaddi Lal,	St Stephen's Mission College, Delhi.	1762/62	
18	Rodgers, B. A.,	La Martinière Lucknow.	1711/60	
SECOND SUBORDINATE CLASS.				
(Full Merit, 1780).				
1	Gyde, G. J.,	Sergt., 1st Gordon Highlanders.	1575/90	Higher Standard. Silver Medal for General Merit. Prizes for Mathematics and Civil Engineering. Silver Medals for Surveying and Photography. 'Kany Memorial' Silver Medal for Bookmaking.
2	McKenzie, T.,	Sergt., 2nd A. and S. Highlanders.	1421/81	Higher Standard. Qualified in Photography.
3	Holmes, A. H.,	Lea-Corpl., 2nd E O Yorkshire L. I.	1404/80	
4	Franman, J. V.,	Sergt., 2nd Durham L. I.,	1397/80	Higher Standard.
5	Flower, G. H.,	La Martinière, Lucknow.	1370/80	Higher Standard. Silver Medal for Drawing. Qualified in Photography.
6	Scarna, P.,	Mr Sheehan's, Munrocor.	1361/75	Higher Standard.
7	Dunoon, C.,	Sergt., 2nd A. and S. Highlanders.	1361/78	Higher Standard. Qualified in Photography.
8	Myers, F. R.,	Mr Sheehan's, Munrocor.	1339/77	
9	Smith, J. H.,	Corpl., 2nd Durham L. I.,	1332/76	Higher Standard.
10	O'Brien, H.,	Sergt., 1st Hampshire Regt.	1345/71	
11	Faisal Hama,	Saharsapur,	1235/70	Raja Bahadur Kunhya Lal's Silver Medal.
12	Hill, T.,	Lea-Corpl., 5th R I Lancers.	1210/69	Higher Standard.
13	Bisban Singh,	Lahore.	1207/69	
14	Gorman, J.,	Sergt., 2nd Royal Irish Regiment.	1202/68	
15	Habberd, C. F.,	La Martinière, Lucknow.	1202/69	Higher Standard.
16	Duncan, J. H.,	La Martinière, Lucknow.	1193/62	
17	Kent, O.,	Ag Bomb, "H" Battery, R H A.	1180/67	
18	Hilton, F. R.,	La Martinière, Lucknow.	1145/63	
19	Angan Lal,	Unbells,	1112/64	
20	Uday Ram Gupta,	Saharsapur,	1063/61	
21	Brij Bhusan Sharma,	Bulandshahr,	.	Dead.
THIRD SUBORDINATE CLASS.				
(Full Merit, 1870).				
Sub-Ordinary—(Class A or B)				
1	.....	Gupta,	1360/31	Raja Bahadur Kunhya Lal's Silver Medal for General Merit. Silver Medals for Civil Engineering and Surveying.

1892.

No.	Name.	Rank and Corps, and where attached.	Mark gained.	Remarks.
2	Kishori Ram, A ..	Kapurthala,	1286 78	
3	Phammen Ram, A ..	Ludhiana,	1258 75	
4	Tika Ram, A ..	Bulandshahr,	1258 75	Drawing.
5	Thakor Singh, A ..	Patna,	1258 75	
6	Muhammad Akbar, A ..	Nabha,	1258 75	
7	Atma Ram, A ..	Ludhiana,	1254 74	
8	Ram Ram, A ..	Naikot,	1207 72	
9	Ram Ram, A ..	Nabha,	1200 71	
10	Ghazal Ram, B ..	Patna,	1199 71	
11	Haral Ram, A ..	Ludhiana,	1199 71	
12	Bhagat Singh, A ..	Patna,	1192 71	
13	Nathu Lal, A ..	Patna,	1182 71	
14	Sundar Das, A ..	Kapurthala,	1178 71	
15	Niaz Muhammad, B ..	Umballa,	1170 70	
16	Tara Chand, A ..	Karnal,	1166 70	
17	Munif Lal, A ..	Delhi,	1164 70	
18	Baba, A ..	Hoshiarpur,	1163 70	
19	Sadras Chand, A ..	Muzaffargarh,	1150 69	
20	Bihari Lal, A ..	Ferozkabad,	1138 68	First for Engraving.
21	Shadi Ram, A ..	Patna,	1130 68	
22	Om Muhammad, A ..	Gudaspur,	1129 68	
23	Ramji Das, A ..	Beharaspur,	1114 67	
24	Kash Ram, A ..	Ludhiana,	1108 66	
25	Debi Prasad, A ..	Bijoor,	1100 66	
26	Jadraj Singh, A ..	Muzaffargarh,	1095 66	
27	Bhagwan Sahai, A ..	Bulandshahr,	1087 65	
28	Buchamber Das, A ..	Patna,	1079 64	
29	Shibba Singh, A ..	Bijoor,	1078 64	
30	Hardwar Ram, A ..	Ludhiana,	1070 64	
31	Parbh Lal, A ..	Bara Banki,	1069 64	
32	Ram Lal, A ..	Bulandshahr,	1068 64	
33	Nam Chand, A ..	Muzaffargarh,	1051 63	
34	Samsalla, A ..	Bulandshahr,	980 52	
35	Maula Baksh, A ..	Lahore,	975 50	
36	Makbul Ahmad, A ..	Beharaspur,	965 50	
37	Shibbaram Das, B ..	Delhi,	9-7-57	
38	Karm Narayan, A ..	Lahore,	908 54	
39	Gujar Singh, A ..	Ludhiana,	892 54	
40	Muhammad Yousuf, B ..	Beharaspur,	880 53	
Full Marks,			374	
1	Thamman Singh, A ..	Ludhiana,	422	Special Certificate as 3rd Grade Sub-Overseer.
2	Kathu Ram, A ..	Hoshiarpur,	412	
Full Marks,			612	
5	Dewan Singh, A ..	Patna,	410	Special Certificate as 2nd Grade Sub-Overseer.

Alphabetical List by

No.	Rank and Name, &c.	Year
ASSISTANT ENGINEERS		
1	Barber, W. R., .. La Marine, Lockport, ..	1867
	Dickers, C., ..	1868
	Brown, W. H., Lieut., 7th Regiment, ..	1869
	Ball, H., .. England, ..	1867
5	Daniell, H., .. Massachusetts School, ..	1867
	Dodge, P., .. Massachusetts School, ..	1868
	Dodge, R., .. Massachusetts School, ..	1871
	Gordon, W. E., .. Cheltenham College, ..	1872
	Hodges, E., .. Local Fund Regt., Omaha, ..	1873
10	Harris-Chandra Ray, ..	1869
	London, A., Lieut., .. Genl. List, Infantry, ..	1869
	Luttrell, J. A., Lieut., .. 1-12th Regiment, ..	1868
	Longmore, W. H., ..	1866
	MacKenzie, P., ..	1873
15	McGowan, P. S., .. Bishop Cotton School, ..	1874
	Molnarworth, H. B., ..	1873
	Neill, G. F. R. S., Lieut., .. Royal Artillery, ..	1868
	Parsons, H., .. St. Peter's College, Agara, ..	1870
	Philpot, O., .. England, ..	1866
20	Raymond, Bruce, Lieut., .. Royal Artillery, ..	1869
	Sampson, J. Stuart, .. Local Fund Regt., Omaha, ..	1874
	Smith, Ward, .. Massachusetts School, ..	1866
	Srinivas Chandra Ray, .. Pres. College, Calcutta, ..	1875
	Talbot, R. M., .. Delhi College, ..	1870
25	Whish, J. T., Lieut., .. 103rd Regiment, ..	1867
	Widnell, A. B. S., .. England, ..	1866
37	Wissman, W., .. Asst. Drawing Master, Thomason College, ..	1866
Sub-Engineers		
1	Adams, J., Sergt., R.E., Overseer, ..	1872
	Ali Muhammad, ..	1861
	Bentford, C. Sgt., R.E., Overseer, 1st grade, ..	1891
	Booley, G. H., .. Supervisor, ..	1863
5	Boyd, H. A., Sergeant, .. 1st Bn. East Lancs Regt., ..	1862
	Cargill, W. M., St., R.E., Supervisor, 1st grade, ..	1873
	Clayton, H., Sergeant, .. 8th Hussars, ..	1864
	Clifford, W. H., L.-Sgt., .. 48th Regiment, ..	1873
	Cunningham, G. H., Ag. Bombr., .. G.-A., R. H. Artillery, ..	1864
10	Daly, J. H., ..	1861
	Douglas, J., ..	1871
	Edden, J., Sergt., .. Overseer, 1st grade, ..	1861
	English, T., .. Supervisor, 1st grade, ..	1873
	Gearing, H., Gunner, .. Supervisor, ..	1870
15	Gowish Rai, ..	1864
	Gibney, J., Private, .. Overseer, 1st grade, ..	1866
	Harbert, J., Private, .. Supervisor, ..	1874
18	Highway, E., Sgt., R.E., Supervisor, 1st grade, ..	1863

* Special Class men, and granted Sub-Engineer's certificate.

No.	Rank and Name, &c.	Year
NON-ENGINEERS—(continued).		
■	Hayden, E., Sub-Comdr., Supervisor, 2nd grade, ...	1894
■	Hunter, J., Sergeant, 2nd Northumberland Fusiliers	1894
	Hurst, J., Sergeant, ..	1889
	Jhanda Lal, .. Supervisor, ..	1899
	Kelly, P., Sergeant, ..	1899
	Lee, G. A., Private, ..	1897
■	Lennox, W., Corporal, ..	1885
	Longmore, W. H., .. Prob. Asst. Overseer, ..	1881
	..... S., Schl. Master, Royal Engineers, ..	1877
	McQuillan, I., Bombr., .. Overseer, 1st grade, ..	1871
	McQuillan, W. J., .. Supervisor, ..	1867
30	Malvinall, M., .. Supervisor, 2nd grade, ..	1874
	Pace, T., Sergeant, .. Overseer, 1st grade, ..	1863
	Phelan, T., Sergeant, .. Overseer, 1st grade, ..	1868
	Porter, J. A., Corporal, .. Overseer, 1st grade, ..	1864
	..... Lal, ..	1864
■	..... H., Tp S Mq, .. Overseer, 1st grade, ..	1869
	Rogers, J., Private, .. 9th Lancers, ..	1894
	Scott, A., .. Supervisor, ..	1889
	..... W., Sapper, .. Royal Engineers, ..	1863
	Smith, T., .. Supervisor, ..	1867
40	Spurr, T., .. Supervisor, ..	1869
	Stallman, E. C., .. Foreopener, ..	1872
	..... F., Sub-Cdr., Supervisor, 2nd grade, ..	1896
43	Woods, H. C., .. Supervisor, ..	1862
OVERSEERS		
1	Anderson, J., Lt.-Cpl., 26th Regiment, ..	1874
	Arastab Singh, ..	1862
	Atkinson, Sergeant, .. Royal Engineers, ..	1866
	Aster Singh, ..	1862
2	Bahadur Ram, ..	1867
	Beavers, W., Private, .. 104th Regiment, ..	1866
	..... Lal, Majumdar, ..	1861
	Bani Prasad Upadhyaya, ..	1891
	Bani Prasad, ..	1866
10	Benford, C., Corpl., .. Royal Engineers, ..	1882
	Bhagat Ram, ..	1882
	Blair, W., Corporal, .. Royal Engineers, ..	1882
	Boyd, T., Private, .. 7th Hussars, ..	1868
	Briez, Corporal, .. Madras S. and Miners, ..	1890
15	Burke, E., Private, .. 37th Regiment, ..	1866
	Burke, H., 2nd Corpl., Sappers and Miners, ..	1866
	Bholo Ram, .. Storekeeper, Mily Works, ..	1878
	Cargill, W., Sapper, .. Royal Engineers, ..	1870
	Chandra Kumar Ghosh, ..	1872
20	Chand Lal, ..	1872
	Coutman, H., Sergt., Royal Engineers, ..	1862
	Coulthrop, T., Private, 14th Dragoons, ..	1866
	DaBergu, W. F., Sergt., Royal Engineers, ..	1877
24	Donahy, F., Lieut.-Corpl., 37th Regiment, ..	1870

* Special Cast.

No.	Rank and Name, &c.	Year.	Remarks.
OVERSEERS—(continued)			
■	D. Harnamshaw, ..	1870	
	Dyal, ..	1876	
	Downson, J., Sapper, ..	1866	
	Edwards, J., Corporal, ..	1866	21st Hussars,
	Farne, J., Sergt., ..	1866	Royal Artillery,
30	Farran, W., Sapper, ..	1866	Royal Engineers,
	FinGibbon, H. W., ..	1864	
	Fox, O., ..	1860	Benares,
	Fraser, S., Private, ..	1866	42nd Highlanders,
	Ganga, ..	1872	Gurgaon,
35	Galan, T., ..	1861	Artiller,
	Ghulam Shabdur, ..	1867	Sub-Overseer,
	Gobind Lal, ..	1871	
	Gray, T., Private, ..	1866	19th Hussars,
	Harris, T., ..	1866	Ordinance Artificer,
40	Hughes, T., Private, ..	1866	42nd Highlanders,
	Hari Chand, ..	1866	
	Jadgaath Chowdry, ..	1860	Benares,
	Johnston, A., ..	1860	Gratior,
	Jolly, W., Private, ..	1870	1-4th Regiment,
■	Kapur Singh, ..	1866	Sub-Overseer,
	Kansu Ah, ..	1860	Gonda,
	Kelly, P., ..	1864	Royal Artillery,
	Kishan Chand, ..	1866	
	Kuri, ..	1872	Machine Drawing Master,
50	Krishnaji Ganesh, ..	1866	Sapper,
	Lachman Prasad, ..	1861	Benares,
	Larkin, M., Sapper, ..	1870	Royal Engineers,
	Lloyd, C., ..	1861	Secundrabad,
	Lyness, B., ..	1861	Sicaper,
55	Mahoney, J., Corporal, ..	1859	Royal Engineers,
	Manton, J., Private, ..	1860	
	Mason, W. B., ..	1860	Ordinance Artificer,
	Mathurá Das, ..	1866	
	McGregor, D., ..	1840	
60	McGraw, P. B., Major, ..	1860	1st M. H. Infantry,
	McLaughlin, G., ..	1870	Lucknow,
	McLean, Sergeant, ..	1866	42nd Highlanders,
	Mohitachandra Ray, ..	1866	
	Moran, F., Private, ..	1866	
65	Mudge, B., Or-Mr Sgt, ..	1877	Royal Engineers,
	Murphy, W., Sapper, ..	1866	Royal Engineers,
	Nabi Ahmad, ..	1870	
	O'Farrell, J. H., Sergt., ..	1866	Barrack Sergeant,
	Power, J., ..	1861	Secundrabad,
70	Reid, Alfred Augustus, ..	1874	
	Reilly, J. B., ..	1866	
	Ritchie, W., Corporal, ..	1866	Sappers and Miners,
	Rivett, J. H., ..	1861	Sicaper,
	Robertson, J. E., ..	1866	Kamptee,
75	Rose, F., ..	1866	Carriage and Artificer,
76	Sapórti Somaji, ..	1870	Sub-Overseer,

No.	Rank and Name, &c.	Year	Remarks
OVERSEER—(continued).			
77	Saratchandra Ray, ..	1871	
	Sarkul, ..	1890	
	Shanar, C. F., ..	1859	
80	Shambho Das, ..	1872	Native Surveying Master.
	Shao Nisyan, ..	1871	Native Surveying Master.
	Soobrow, H. V., ..	1868	
	Sri Ram, ..	1874	Sub-Overseer, 1st grade.
	Steele, G., Corporal, ..	1850	Royal Engineers.
85	Sumner, H., ..	1878	
	Umrao Singh, ..	1880	Saager.
	Utiam Singh, ..	1886	
	Vardon, S. H., ..	1858	Ranchore Division.
	Vynar, H., ..	1875	11th Hussars.
90	Weedon, C., Gunner, ..	1868	C. C. R. H. Artillery.
	Wilson, W. T., L.-Corpl., ..	1883	9th Lancers.
	Witman, H., Private, ..	1860	2nd Bn. R. Brigade.
95	Yach, T., ..	1861	Artificer.

YEARLY LIST.

OFFICERS

No.	Name.	Rank and Corps.	Mark obtained.	Remarks.
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(Full Marks, 900).

1	Stallwell, T. F.	.. Lieut., 30th Regiment.	730	} Higher Standard Military Surveying and Field Engineering. Passed in Military Surveying and Field Engineering. Will be qualified on completing his Military Surveying.
2	Gordon, R.	.. Lieut., 36th Highlanders.	664	
3	Macpherson, J. D.	.. Lieut., 3rd Punjab Cavalry.	662	
4	Campbell, H.	.. Captain, Bengal Staff Corps.	628	
5	Richmond, F.	.. Lieut., Royal Artillery.	519	

1867

(Full Marks, 900)

1	Hanna, H. B.	.. Lieut., 10th Bengal Cavalry.	681	} Higher Standard Military Surveying and Field Engineering. Passed in Military Surveying and Field Engineering.
2	Elliston, H. C.	.. Surgeon, 50th Regiment.	584	
3	Dale, G. H.	.. Surgeon, 106th Regiment.	519	
4	Lowack, C. W.	.. Captain, 33rd Highlanders.	547	

1868

(Full Marks, 900)

1	Benven, R.	.. Lieut., 23rd P. N. Infantry.	749	} Higher Standard Military Surveying and Field Engineering. Passed in Military Surveying and Field Engineering.
2	O'Callaghan, J. W.	.. Surgeon, 1st Bn 11th Regt.	706	
3	Bogart, S.	.. Capt., 16th Native Infantry.	655	
4	Storey, W.	.. Lieut., 2nd Sikhs.	619	
5	Holmes, W. P.	.. Lieut., 1st Bn 7th Regt.	489	
6	Trotter, J. F.	.. Lieut., 1st Bn 11th Regt.	456	
7	Leslie, F.	.. Lieut., 106th Regiment.	454	

1869.

(Full Marks, 900).

1	Collett, H.	.. Capt., 21st P. N. Infantry.	795	} Higher Standard Military Surveying and Field Engineering. Passed in Military Surveying and Field Engineering.
2	Hillingworth, A. E.	.. Capt., 58th Light Infantry.	776	
3	Buller, H.	.. Capt., 11th B. Cavalry.	750	
4	Gouldsbury, D. E.	.. Lieut., 106th Regiment.	621	
5	Harden, A.	.. Lieut., 23rd P. N. Infantry.	497	
6	Owen, G. A.	.. Captain, 107th Regiment.	515	
7	Harvey, C. E.	.. Lieut., 5th Royal I. Lancers.	404	
8	Gray, H.	.. Surgeon, 2nd Buks.	394	

1870.

No.	Name.	Rank and Corps.	Age	Remarks.
(Full Marks, 900).				
1	Woodhouse, E.	.. Captain, 2nd Pioneer, ..	615	Higher Standard. Military Surveying and Field Engineering.
2	Allen, E.	.. Lieut., 107th Regiment, ..	576	
3	Jamieson, A. W.	.. Lieut., 108th Regiment, ..	556	
4	Moore, G. R.	.. Lieut., 107th Regiment, ..	555	
5	Swetnam, H.	.. Surgeon, 10th Regiment, ..	551	
6	Nichols, T.	.. Lieut., 2nd R. M. Infantry, ..	561	Passed in Field Engineering.

1871.

(Full Marks, 1000).				
1	Branson, C. E. D.	.. Capt., Genl. List, Infantry, ..	747	Higher Standard. Military Surveying and Engineering.
2	Burrell, E.	.. Surgeon, 35th Regiment, ..	747	
3	Thompson, R.	.. Lieut., 1-11th Regiment, ..	708	
4	Trotter, J. M.	.. Capt., Genl. List, Infantry, ..	708	
5	Barcourt, F. H.	.. Captain, Royal Artillery, ..	680	
6	Stewart, F. M.	.. Captain, Bengal Army, ..	680	Passed in Military Surveying and Field Engineering.
7	McIntyre, H. E.	.. Lieut., 2-35th Regiment, ..	615	
8	Carter, H. T.	.. Surgeon, 62nd Regiment, ..	595	
9	Brown, W. H.	.. Lieut., Bengal Staff Corps, ..	412	

1872.

(Full Marks, 1000).				
1	Bell, E.	.. Lieut., 1-6th Regiment, ..	685	Higher Standard. Military Surveying and Field Engineering.
2	Pennington, C. H.	.. Captain, 18th B. Cavalry, ..	765	
3	Hickson, R. A.	.. Lieut., The Buffs, ..	685	
4	Dodsworth, W. F.	.. Captain, 26th P. Infantry, ..	602	Passed in Military Surveying and Field Engineering.
5	Byng, G. P. F.	.. Lieut., 104th Regiment, ..	674	
6	Scott, C. H. F.	.. Breast Major, B. R. Corps, ..	534	

1873.

(Full Marks, 1000).				
1	Dowse, R.	.. Lieut., 2-12th Regiment, ..	799	Higher Standard. Military Surveying and Field Engineering.
2	Kane, M. N. G.	.. Lieut., 72nd Regiment, ..	783	
3	Corbett, W. A.	.. Captain, 62nd Regiment, ..	684	
4	Bellson, G. M.	.. Lieut., 107th Regiment, ..	677	Passed in Military Surveying and Field Engineering.
5	Thomas, C. F.	.. Capt., Genl. List, Infantry, ..	688	
6	Agas, C.	.. Lieut., 12th B. Cavalry, ..	688	

1874.

No.	Name.	Rank and Corps.	Age	Remarks.
(Full Marks, 1000)				
1	Stewart, G.	...Capt., Bengal Staff Corps,	515	} Higher Standard Military Surveying and Field Engineering. } Passed in Military Surveying and Field Engineering.
2	Bowhill, J. H.	...Lieut., 62nd Regiment, ..	796	
3	Babington, C. W.	...Capt., Genl. List, Infantry,	631	
4	MacDonald, L.	...Capt., Bengal Staff Corps,	667	

1875.

(Full Marks, 1000)				
1	Hammond, A. G.	...Capt., Guides Corps, ...	650	} Higher Standard Military Surveying and Field Engineering
2	Main, J. E.	...Lieut., 8th P. N. Infantry,	725	

(Full Marks, 1000)				
1	Young, G. F.	...Lieut., 30th N. Infantry, ..	911	} Higher Standard Military Surveying and Field Engineering } Passed in Military Surveying and Field Engineering
2	Fordyce, J. D.	...Lieut., 8th Bengal Cavalry,	886	
3	Wilson, E. R. G.	...Major, Staff Corps, ...	543	

FRANKY EMB.

1888. CLASS.

1888.

Ranking in Regiment	Name	Rank and Corps	Age in 1888	Remarks
(Full Marks, 600).				
1	Zeno, A.,	... Lee-Corpl, 1st Dragoon Guards,	494	
2	Bearpark, H.,	... Lee-Corpl, 2nd Dragoon Guards,	500	
3	Festfield, E.,	... Lee-Corpl, 1st K. O. Border- ers,	445	
	Jeffries, W.,	... Lee-Cpl, 17th D. C. O. Lancers,	445	
	Cordery, E.,	... Corp., 7th Dragoon Guards, ..	300	
	Bristol, W.,	... Sergt, 7th Dragoon Guards, ..	...	Deserted

1889.

(Full Marks, 600)

1	Batten, F.,	Sergt., 2nd Wiltshire Regiment,	476	
2	Walsh, T.,	... Sergt, 2nd Scottish Rifles,	463	
3	Hampton, R.,	... Lee-Sergt., 6th Hussars,	460	
4	Smclair, R.,	... Lee-Corpl, 2nd Seaforth High- landers,	330	
	Minto, H.,	... Sergt., 2nd Manchester Regt.,	354	
	Sharpe, W.,	... Lee-Sergt., 2nd Warwickshire Regiment,	343	
	Martin, W.,	... Pte, 2nd Devonshire Regiment,	341	
	Bolton, R.,	... Sergt., 2nd West Yorkshire Regiment,	332	

1890.

(Full Marks, 600).

1	Stevenson, M.,	... Lee-Corpl, 1st Rifle Brigade, ..	360	} <i>Major</i>
2	O'Rourke, M.,	... Sergt., 2nd Royal Irish Fusiliers,	332	
3	Cook, G.,	... Sergt., 2nd South Wales Ber- regers,	317	
	Ingledeu, G. H.,	... Lee-Corpl, 2nd Dragoon Guards,	306	
	McKenzie, W.,	... Sergt., 2nd Highland Light In- fantry,	306	
	Lore, F.,	... Lee-Corpl., 2nd Northumber- land Fusiliers,	232	

1891.

Rank and Name	Name.	Rank and Comp.	Marks gained	Remarks.
(Full Marks, 600).				
1	Blackbore, W.,	.. Lieut.-Capt., 1st Bn. East Kent,	600	} Higher Standard,
2	Webb, G. C.,	.. Corp., 2nd Bn. Royal Scots	587	
		Fusiliers,	587	
3	Hosson, S.,	.. Sergt., 2nd Royal Sussex,	548	
4	Carr, O. H.,	.. Sergt., 1st Bn. East Lancashire,	538	
5	Price, W.,	.. Corp., 1st Bn. Royal Welsh	528	} Failed.
		Fusiliers,	528	
6	Kennedy, F. W.,	.. Sergt., 2nd Bn. Border Regt.,	189	

1892.

(Full Marks, 600)				
1	Morgan, E.,	.. Sergt., 3rd Bn. Rifle Brigade,	646	} Higher Standard.
2	Hale, J. W.,	.. Sergt., No. 6 Mountain Bty.,	576	
		R. A.,	576	
3	Brown, A.,	.. Lieut.-Sergt., 2nd Bn. Lancashire	564	
		Regt.,	564	
4	McDonough, A. D.,	.. Lieut.-Corp., 1st Bn. Royal Welsh	550	} Higher Standard.
		Fusiliers,	550	
5	Cowling, A.,	.. Sergt., 2nd Bn. West Yorkshire	538	
		Regt.,	538	
	Edwards, H. B.,	.. Lieut.-Corp., 5th Bn. I. Lancashire,	538	
	Adrian, J.,	.. Sergt., 2nd Bn. Border Regt.,	538	} Failed.
		ment,	538	
	Barnett, J.,	.. Sergt., 1st Bn. Royal Fusiliers,	511	

1893.

(Full Marks, 600).				
1	McKenna, T.,	.. Sergt., 2nd Bn. Argyll and	} Higher Standard.	
		Sutherland Highlanders,	674	
2	Tharburn, J.,	.. Lieut.-Sergt., 1st Bn. Gordon	486	
		Highlanders,	486	
3	Cunningham, G.,	.. Sergt., 1st Bn. East Surrey Regt.,	440	
4	O'Neill, C.,	.. Lieut.-Corp., 1st Bn. Rifle	575	
		Brigade,	575	
5	Allen, G.,	.. Sergt., 1st Bn. Royal West Kent	568	
		Regt.,	568	
6	Yorke, E. J.,	.. Corp., 2nd Bn. Royal Munster	538	
		Fusiliers,	538	
7	Pimlott, J. E.,	.. Lieut.-Corp., 2nd Bn. Manchester	528	
		Regt.,	528	Failed.

YEARLY LIST.

1894.

Standing in Examination	Name	Rank and Corps.	Marks gained.	Remark
(Full Marks, 400)				
1	W. M.,	.. Lieut.-Col., 10th (Queen's) Lan- cers, ..	480	} Higher Standard.
2	Pantry, F.,	.. Sergt., 1st Bn. Hampshire Regt.,	417	
3	Bentall, A. M.,	.. Lieut.-Sergt., 2nd Bn. Essex Regt.,	418	
4	Kensdale, R. J.,	.. Sergt., 1st Bn. King's Royal Rifles,	409	
5	Marr, J. T.,	.. Lieut.-Sergt., 1st Bn. Devonshire Regt.,	378	
6	Pinnett, J. B.,	.. Lieut.-Col., 2nd Bn. Manchester Regt.,	375	
7	Harris, F.,	.. Sergt., 8th B. I. Lancers,	371	
8	Mann, W. J.,	.. Sergt., 2nd Bn. Oxfordshire L.I.,	..	Withdrawn.

1895

(Full Marks, 400).				
1	Hannay, R. G.,	.. Sergt., 2nd Bn. Royal Dublin Fusiliers, ..	455	} Higher Standard.
2	Cameron, H.,	.. Sergt., 1st Bn. Gordon High- landers, ..	440	
3	Flower, J. H.,	.. Lieut.-Col., 1st Bn. King's Royal Rifles,	388	
4	Bradshaw, W. F.,	.. Lieut.-Col., 1st Bn. K. O. G. Borderers, ..	380	
5	Lee, H.,	.. Sergt., 1st Bn. Duke of Corn- wall's L. I.,	..	} Withdrawn.
6	Shepherd, W.,	.. Corpl., 1st Bn. East Surrey,	..	
7	Reynolds, J. N.,	.. Lieut.-Sergt., 2nd Bn. Derbyshire,	..	
8	Swete, H.,	.. Corpl., 2nd Bn. Highland L. I.,	..	Dead.

1896.

(Full Marks, 300).				
1	Smith, A.,	.. Corpl., 1st Bn. Hampshire Regt.,	253	} Higher Standard.
2	Bennett, E.,	.. Corpl., 1st Bn. Shropshire L. I.,	251	
3	Sheppard, J. P.,	.. Sergt., 3rd Bn. Rifle Brigade,	246	
4	Jones, E. W.,	.. Lieut.-Col., 1st Bn. Somerset Light Infantry,	200	
5	Mann, A. B.,	.. Sergt., 1st Bn. Gordon High- landers,	202	
6	Wall, S. R.,	.. Asst. Bomb., 12th Co. South- am Down R.A.,	191	
7	Cattell, H.,	.. Lieut.-Col., 2nd Bn. Highland Light Infantry,	189	
8	Horton, J. G.,	.. Sergt., 2nd Bn. Border Regt.,	161	

NATIVE MILITARY

the Guides Corps Class on first foundation in and until 1880).

1874.

Rank and Name	Rank	Name	Corps	Points	Remarks
(Full Marks, 2400).					
1	Major	Mahmud Khan,	Remount, Guides Corps,	2400	
18	Major	All Anghar,	Duffader,	2375	
	Major	Badda Rang,	Duffader,	2375	
	Major	Khan Babu,	Duffader,	2300	Higher Standard
19	Major	Nadar Ali,	Sowar,	2375	
20	Major	Karpal Singh,	Sowar,	2375	
	Major	Radha Kishan,	Sowar,	2300	
21	Major	Imar Singh,	Sowar,	2375	
22	Major	Atta Muhammad,	Sowar,	2375	
23	Major	Nadar Khan,	Sowar,	2300	
	Major	Nihal Chand,	Sowar,	2300	
	Major	Jawalla Singh,	Havildar,	2300	
	Major	Kamur-ud-din,	Havildar,	2300	
24	Major	Dharm Singh,	Havildar,	2300	
25	Major	Sher Singh,	Havildar,	2300	
	Major	Jivan Singh,	Havildar,	2300	
26	Major	Mydallah,	Lance-Koek,	2300	
27	Major	Adnan Khan,	Lance-Koek,	2300	
28	Major	Asim Khan,	Sepoy,	2300	
29	Major	Tumar Shah,	Sepoy,	2300	
30	Major	Nepa (S),	Sepoy,	2300	
31	Major	Bir Behadér,	Sepoy,	2300	
32	Major	Amar Singh,	Sepoy,	2300	
33	Major	Kamur Singh (G),	Sepoy,	2300	
34	Major	Kaidan,	Sepoy,	2300	

1875.

(Full Marks, 2400).					
1	Major	Ghanis,	Remount, Guides Corps,	2375	
2	Major	Shahadat Jahangir,	Duffader,	2300	Higher Standard.
3	Major	Fakrullah,	Duffader,	2300	
4	Major	Mohar Singh,	Sowar,	2300	
5	Major	Gholam Haider,	Sowar,	2300	
6	Major	Hidayatullah,	Sowar,	2300	
7	Major	Faris Ram,	Sowar,	2300	
8	Major	Muhammad Latif,	Sowar,	2300	
9	Major	Fais Talib,	Sowar,	2300	Higher Standard.
10	Major	Miah Singh,	Sowar,	2300	
11	Major	Asim,	Sowar,	2300	

YEARLY LIST

1876.

Ranking at Entrance	Name.	Rank and Corps.	Mark gained	Remarks.
7	Samundar,	.. Havildar, Guides Corps,	1009	
30	Khem Singh,	.. Lance-Matck,	870	
11	Dillia,	.. Lance-Matck,	887	
9	Kelaut,	.. Lance-Matck,	968	
14	Ran Bahadur,	.. Sepoy,	709	
14	Khia Mir,	.. Sepoy,	685	
3	Sachat Singh,	.. Sepoy,	1856	Higher Standard.
30	Kallander,	.. Sepoy,	870	
18	Bur Bull,	.. Sepoy,	677	
23	Jitman,	.. Sepoy,	558	
19	Martana,	.. Sepoy,	872	
8	Bala Singh,	.. Sepoy,	1100	Higher Standard.

1876.

(Full Marks, 2200).

4	Jagat Singh,	.. Jemadar, Guides Corps,	1262	Higher Standard.
8	Mehrab Singh,	.. Havildar-Major,	1897	
18	Shup Singh,	.. Duffadar,	941	
1	Ram Dayal,	.. Trumpeter,	1074	Higher Standard.
15	Wazir Singh,	.. Sower,	739	
12	Amit Khan,	.. Sower,	987	
17	Ghulam Hassan,	.. Sower,	787	
9	Shahzadi Taiman,	.. Sower,	1889	Higher Standard.
13	Kala Singh,	.. Sower,	959	
19	Jog Dhyas,	.. Sower,	898	
11	Abdul Hamid,	.. Sower,	1058	
9	Nahalla,	.. Sepoy,	1082	
8	Ramnah,	.. Lance-Matck,	1180	Higher Standard.
6	Abdalah,	.. Bugler,	1098	
10	Guruch Shab,	.. Lance-Matck,	1072	
14	Ilahi Baksh,	.. Sepoy,	909	
23	Nasim,	.. Sepoy,	513	
23	Mirab,	.. Sepoy,	509	
30	Iksham Singh,	.. Sepoy,	890	
8	Ganda Singh,	.. Sepoy,	1449	Higher Standard.
6	Kala Singh,	.. Sepoy,	1098	
14	Jang Bir Thapa,	.. Sepoy,	818	
21	Dada Khan,	.. Sepoy,	629	

(Full Marks, 1100).

3	Jwala Singh,	.. Jemadar, Guides Corps,	1301	Higher Standard.
10	Tahal Singh,	.. Havildar,	1176	
6	Mohar Singh,	.. Duffadar,	1848	
11	_____ Singh,	.. Matck,	1148	
21	Jang,	.. Lance-Matck,	789	

1877.

Ranking in Previous Year	Name	Rank and Corps	Rank	
2	Ishar Singh,	.. Sowar, Guides Corps,	1485	} Higher
3	Nihal Chand,	.. Sowar,	1179	
15	Inayat Khan,	.. Sowar,	..	
18	Muhammad Ali,	.. Sowar,	..	} Higher
20	Zabta Khan,	.. Sowar,	..	
1	Abdul Ahsan,	.. Sowar,	..	
5	Hakamat Rai,	.. Sowar,	..	} Higher
17	Devri Singh,	.. Sepoy,	..	
19	Ran Bir,	.. Sepoy,	..	
7	Ran Bahadur,	.. Sepoy,	..	} Higher
24	Chhabila,	.. Sepoy,	..	
22	Kashu,	.. Sepoy,	765	
16	Ganda Singh,	.. Sepoy,	929	} Higher Standard.
2	Sachet Singh,	.. Sepoy,	1551	
14	Aryan Singh,	.. Sepoy,	1683	
13	Tara,	.. Sepoy,	1091	} Higher Standard.
4	Bala Singh,	.. Sepoy,	1438	
12	Daulat,	.. Sepoy,	1104	
23	Fateh Khan,	.. Sepoy,	763	

1878.

(Full List, 1878)

10	Muhammad Sharif,	.. Jemadar, Guides Corps,	1102	} Higher Standard.
3	Tirath Ram,	.. Duffadar,	1401	
19	Kapur Singh,	.. Havildar,	723	
24	Mohan Bir,	.. Havildar,	803	} Higher Standard.
1	Ganesh Shah,*	.. Naick,	1692	
21	Chagat Singh,	.. Sowar,	757	
5	Deo Rai,	.. Sowar,	1332	} Higher Standard.
12	Bukhan Singh,	.. Sowar,	1000	
25	Yahya Khan,	.. Sowar,	572	
11	Muhammad Hassan,	.. Sowar,	1080	} Higher Standard.
8	Abdul Hamid,*	.. Sowar,	1574	
6	Muhammad Hussam,	.. Sowar,	1347	
29	Muhammad Sarwar,	.. Sowar,	734	} Higher Standard.
20	Kalandar,	.. Lance-Naick,	743	
19	Hira Singh,	.. Sepoy,	775	
17	Mani Rai,	.. Sepoy,	827	} Higher Standard.
9	Gordai Singh,	.. Sepoy,	1152	
2	Nihala,*	.. Sepoy,	1522	
14	Dada Khan,*	.. Sepoy,	928	} Higher Standard.
15	Kalandar,*	.. Sepoy,	883	
13	Rahim Didi,	.. Sepoy,	946	
23	Abdul Karim,	.. Sepoy,	833	} Higher Standard.
4	Thakur Singh,	.. Sepoy,	1531	
16	Fakir Muhammad,	.. Sepoy,	834	
7	Ganda Singh,	.. Sepoy,	1233	} Higher Standard.

* Have attended a course previously.

TRAVEL LIST.

1880.

Rank and Corps	Remarks
(Full Marks, 900)	
Shanba Rām, .. Natch, 6th P Infantry, .. 806	Higher Standard.
Sam Shah, .. Sowar, 8th B Cavalry, .. 808	
Sunder Singh, .. Sepoy, 1st Sikh Infantry, .. 783	
Shib Singh, .. Sowar, 9th B Cavalry, .. 770	
Abdai Simā, .. Duffader, 6th P Cavalry, .. 768	
Bodh Rāj, .. Sowar, 11th B Cavalry, .. 712	
Pānsh Khān, .. Sowar, 11th B Lancers, .. 616	
Shama-ād-din Khān, .. Lance-Duffader, 13th B L., .. 468	
Bhagwan Singh, .. Sowar, 11th B Lancers, .. 469	
Abdai Latif Khān, .. Duffader, 4th P Cavalry, .. 379	
Hazārāh Singh,* .. Lance-Duffader, 3rd P C., ..	Higher Standard.

1881.

(Full Marks, 900)	
1 Kartār Singh, .. Sowar, 16th B Cavalry, ..	Higher
2 Harām Singh, .. Sowar, 7th B Cavalry, .. 787	
3 Sardar Khan, .. Duffader, 4th P Cavalry, .. 787	
4 Kalander Khān, .. Sowar, 7th B Cavalry, .. 730	
5 Nishan Singh, .. Sowar, 8th P Cavalry, ..	
6 Mastan Singh, .. Sowar, 6th B Cavalry, .. 710	
7 Dewa Singh, .. Lance-Duffader, 4th P C., .. 697	
8 Hakhawar Singh, .. Sowar, 16th B Cavalry, .. 660	
9 Wiro Khān, .. Sowar, 3rd B Cavalry, .. 644	
10 Santa Singh, .. Havildar, 4th Sikh Infantry, .. 643	
11 Sher Singh, .. Sowar, 6th B Cavalry, .. 647	Higher
12 Kārban Ali, .. Sowar, 5th P Cavalry, .. 617	
13 Hanūmant, .. Havildar, 6th P Infantry, .. 608	
14 Kripa Shankar, .. Sowar, 16th B Cavalry, .. 601	
15 Bala Singh, .. Lance-Natch, 1st Sikh Inf., .. 592	
16 Atta Muhammad, .. Sepoy, 2nd P Infantry, .. 507	
17 Daya Singh, .. Sowar, 7th B Cavalry, .. 545	
18 Sheikh Aulad Ali, .. Sowar, 2nd B Cavalry, .. 527	
19 Ghulam Haqat Khān, .. Sowar, 2nd B Cavalry, .. 523	
20 Singh, .. Sowar, 4th P Cavalry, .. 498	
21 Singh, .. Sowar, 5th P Cavalry, .. 477	Higher
22 Bala Singh, .. Sepoy, Gendarm Corps, .. 458	
23 Inayatulla Khān, .. Sowar, 6th B Cavalry, .. 405	
24 Mast, .. Havildar, 3rd P Infantry, .. 309	

1882.

(Full Marks, 900).	
1 Lakha, .. Havildar, 4th B Infantry, ..	Higher Standard.
2 Khatu, .. Sowar, 4th P Cavalry, ..	
3 Muhammad Akbar Khān, .. Duffader, 15th B Cavalry, ..	

* Reported before completion of course—higher certificate granted, as he well deserved it.

1882.

Ranking in Service	Name	Rank and Corps	Marks gained	Remarks
4	Bahadur Khan,	.. Sowar, 15th B Cavalry, ..	674	Higher Standard.
5	Haroon Singh,	.. Lance Naick, 6th P Infy.	652	
6	Ram Sahay Singh,	.. Sowar, 6th B Cavalry, ..	647	
7	Muhammad Nizam Khan,	.. Duffadar, 16th B Cavalry,	646	
8	Salag Singh,	.. Sowar, 6th B Cavalry, ..	633	
9	Bahadur Ali,	.. Sepoy, 1st Sikh Infantry,	637	
10	Abdul Rahman Khan,	.. Sowar, 1st P Cavalry, ..	622	
11	Bakhan Singh,	.. Havildar, 44th N. Infantry,	599	Higher Standard.
12	Gopal Singh,	.. Havildar, 44th N. Infantry,	588	
13	Chahabul Jaud,	.. Havildar, 44th N. Infantry,	575	
14	Kalyan Singh,	.. Sowar, 6th B Cavalry, ..	560	
15	Niyabat Ali,	.. Naick, 2nd Punjab Infantry,	559	
16	Bamot Singh,	.. Lance-Naick, 4th Sikh Infy.	549	
17	Haid Ali,	.. Sowar, 6th B Cavalry, ..	545	
18	Narsingh Singh,	.. Havildar, 2nd P Infantry,	531	Higher Standard.
19	Miran Dakhel,	.. Sowar, 16th B Cavalry,	620	
20	Abdul Sadi Khan,	.. Sowar, 4th P Cavalry, ..	607	
21	Makkhan Mubsh,	.. Lance-Naick, 6th B L I, ..	497	
22	Miran Singh,	.. Naick, 1st Punjab Infantry,	586	
23	Humai Chand,	.. Subadar, 44th N Infantry,	580	
24	Shahab Beg,	.. Lee-Naick, 2nd Sikh Infy.,	553	

(Full Marks, 800).

1	Kanak Singh,	.. Naick, 5th Goorkha Regt., ..	639	Higher Standard.
2	Shivbars Singh,	.. Jemadar, 2nd B. L. Infy. ..	604	
3	Mathab Singh,	.. Naick, 1st Sikh Infantry, ..	771	
4	Udam Singh,	.. Sowar, 9th Bengal Cavalry,	748	
5	Ty Muhammad,	.. Naick, 6th Punjab Infantry,	723	
6	Lakh Ram,	.. Jemadar, 6th B L. Infy. ..	716	
7	Jawabur Ram,	.. Lance-Naick, 6th B L I, ..	699	
8	Indar Singh,	.. Sowar, 9th Bengal Cavalry,	649	
9	Lachman Singh,	.. Lance-Duffadar, 3rd P C,	633	
10	Rajwali Khan,	.. Jemadar, 2nd Punjab Infy.	619	
11	Lakh Ram,	.. Naick, 4th Bengal L. Infy.	583	
12	Abdul Rahman Khan,	.. Duffadar, 9th Bengal Cav.	526	
13	Ali Khan,	.. Naick, 2nd Bengal L. Infy.	457	

1884.

(Full Marks, 800).

1	J. Singh,	.. Sowar, Gunda Corps, ..	837	Higher Standard.
2	Nawab Khan,	.. Sepoy, 4th P Infantry, ..	805	
3	Ahmadyar Khan,	.. Jemadar, 10th B Cavalry,	791	
4	Jalal Khan,	.. Duffadar, 11th B Cavalry,	752	
5	Lal Singh,	.. Sowar, 15th Bengal Lancers,	752	

YEARLY LIST.

1884.

Ranking in Examinations.	Names.	Rank and Corps.	Marks gained.	Remarks.
8	Bhup Singh,	.. Duffadar, 1st P. Cavalry, ..	710	<i>Higher Standard.</i>
9	Bhagwan Singh,	.. Sowar, 2nd Punjab Cavalry, ..	710	
9	Chunta Singh,	.. Jemadar, 18th B N Infy., ..	688	
9	Ramain,	.. Sepoy, 28th B N. Infantry, ..	684	
10	Bhup Singh,	.. Sepoy, 28th B N. Infantry, ..	661	
11	Tikram Singh,	.. Sepoy, 18th B N. Infantry, ..	619	
12	Badhawa Singh,	.. Sepoy, 1st Punjab Infantry, ..	581	
13	Walli Ulla,	.. Havildar, 1st Sikh Infantry, ..	496	
14	Khan Wali,	.. Jemadar, 2nd Sikh Infantry, ..	416	

1885

(Full Marks, 900)

1	Abdul Jabbar,	.. Sowar, 11th B. Lancers, ..	799	<i>Higher Standard</i>
2	Haz Naryyan Pathak,	.. Havildar, 3rd B N Infy., ..	799	
3	Naryyan Singh,	.. Sowar, 6th B. Cavalry, ..	786	
4	Dwarka Shukul,	.. Nuck, 2nd B N. Infantry, ..	775	
5	Gopal Singh,	.. Sowar, 1st P. Cavalry, ..	772	
5	Jahangir,	.. Sowar, Guides Corps, ..	745	
7	Jagan Nath,	.. Sowar, 5th P. Cavalry, ..	737	
8	Hazrat Shah,	.. Jemadar, 5th P. Infantry, ..	730	
9	Azad Frazid,	.. Sowar, 2nd C. I. Horse, ..	727	
10	Muana Khan,	.. Jemadar, 16th B N. Infy., ..	676	
11	Lachhman Singh,	.. Havildar, 2nd P. Infantry, ..	668	
12	Kapur Singh,	.. Sepoy, 4th Sikh Infantry, ..	677	
13	Nihal Singh,	.. Sepoy, 2nd Sikh Infantry, ..	623	
14	Ferna Singh,	.. Sowar, 1st C. I. Horse, ..	621	
15	Sawal Singh,	.. Sowar, 11th B. Lancers, ..	429	

1886.

(Full Marks, 900)

1	Rahnawa Khan,	.. Duffadar, 15th B. Cavalry, ..	861	<i>Higher Standard.</i>
2	Jwand Singh,	.. Jemadar, 18th B. Lancers, ..	824	
3	Ghulam Muhammad,	.. Sepoy, 3rd Sikh Infantry, ..	804	
4	Khasan Singh,	.. Sepoy,, ..	803	
5	Muhammad Khan,	.. Sowar, Guides Corps, ..	784	
6	Faizalab,	.. Havildar, 6th P. Infantry, ..	748	
7	Sher Ali Khan,	.. Lance-Duffadar, G. Corps, ..	737	
8	Hukam Chand,	.. Lance-Duffadar, B. L., ..	729	
9	Jagat Singh,	.. Sepoy, 19th P. Infantry, ..	694	
10	Fateh Muhammad,	.. Sepoy, 4th B. N. Infantry, ..	644	
11	Mutaziddi Singh,	.. Nuck, 4th B. N. Infantry, ..	615	
12	Jhandu Singh,	.. Havildar, 1st P. Infantry, ..	574	
13	Jaman Singh Bhai,	.. Subadar, 42nd A. L. Infy., ..	567	
14	Rajbir Nowar,	.. Jemadar, 42nd A. L. Infy., ..	503	
15	Arjash Khan,	.. Duffadar, 2nd P. Cavalry, ..	487	

	Name.	Rank and Corps.	Marks gained.	Remarks.
	(Marks, 500).			
1	Saltan Sarkar,	.. Sowar, 2nd Punjab Cavalry.	944	<i>Higher Standard</i>
2	Pero Singh,	.. Sowar, 12th Bengal Cavalry.	907	
3	Mun Singh,	.. Havildar, 16th Sikhs,	775	
4	Dhasepal Singh,	.. Lance-Maick, 40th B. Infy.	755	
5	Hayatulla,	.. Naick, 4th Sikhs,	755	
6	Sadulla Khan,	.. Sowar, 1st Punjab Cavalry.	755	
7	Gurdatt Singh,	.. Daffadar, 6th B. Cavalry.	723	
8	Kalam Singh,	.. Sepoy, 5th Garhbas,	712	
9	Muhammad Amin Khan,	.. Koti Daffadar, 15th Bengal Cavalry.	700	
10	Budhibul Ram,	.. Havildar, 44th G. L. Infy.	695	
11	Lamada,	.. Sepoy, 4th Punjab Infantry,	630	
12	Muhammad Hamid,	.. Daffadar, 6th B. Cavalry,	644	
13	Jalal Din,	.. Sepoy, 2nd Sikhs,	587	
14	Rajendra Sahai,	.. Jemadar, 44th G. L. Infy.	649	
15	Muhammad Khan,	.. Naick, Guides Corps,	647	

1880.

(Full Marks, 500).

1	Seraf Mah,	.. Daffadar, 14th B. Lancers,	632	<i>Higher Standard.</i>
2	Man Singh,	.. Sepoy, 4th Sikh Infantry,	534	
3	Kashan Singh,	.. Naick, 1st Sikh Infantry,	532	
4	Haradin Singh,	.. Sowar, 1st Punjab Cavalry,	500	
5	Hira,	.. Naick, 16th Sikh Infantry,	795	
6	Alla,	.. Lance-Naick, 2nd P. Infy.	790	
7	Dilawar Khan,	.. Lance-Naick, 31st P. Infy.	787	
8	Mir Aslam Khan,	.. Sowar, 2nd P. Cavalry,	714	
9	Miran Bahin Beg,	.. Havildar, 2nd B. N. Infy.	708	
10	Ata Muhammad Khan,	.. Sepoy, 30th Punjab Infy.	698	
11	Jama Khan,	.. Havildar, 1st Punjab Infy.	684	
12	Nawab Khan,	.. Daffadar, 10th B. Lancers,	569	
13	Muhammad,	.. Sepoy, Guides Infantry,	515	
14	Kamari,	.. Sepoy, Guides Infantry,	512	
15	Karam Singh,	.. Sowar, Guides Cavalry,	590	
16	Lal Singh,	.. Jemadar, 19th B. Lancers,	580	
17	Kashin Ram,	.. Lee-Daffadar, Guides Cav.	560	
18	Kash Chulana Kottar Khan,	.. Koti Daffadar, 15th B. Cav.	494	

1889

(Full Marks, 700)

1	Karam Khan,	.. Naick, 2nd Sikh Infantry,	687	<i>Higher Standard.</i>
2	Alam Khan,	.. Lance-Naick, Guides Infy.	687	
3	Dost Muhammad,	.. Lance-Daffadar, 5th P. O.	682	
4	Mai Singh,	.. Sowar, 4th Bengal Cavalry,	681	
5	Ikkal Singh,	.. Sowar, 16th B. Cavalry,	615	
6	Khadim Shah,	.. Havildar, 18th P. Infantry,	619	

1899.

Ranking Number	Name.	Rank and Corps.	Remarks.
7	Nathan Singh,	Sowar, 2nd B Cavalry, ..	
7	Khan,	Sowar, B Lancers, ..	
7	Gokal Singh,	Duffadar, Gudea Cavalry, ..	605
	Khan Singh,	Sowar, 14th B Cavalry, ..	
11	Jowand Singh,	Sowar, 3rd Punjab Cavalry, ..	
11	Singh,	Bepoy, Gudea Infantry, ..	608
12	Saleh Muhammad,	Lance-Duffadar, 8th B C, ..	574
14	Khan Bahador,	Sowar, 2nd Punjab Cavalry, ..	580
15	Swayambar Singh,	Lance-Naik, 7th B Infy, ..	585
16	Muhammad Shaz,	Sowar, Gudea Cavalry, ..	554
17	Rai Singh,	Headlar, 4th Sikh Infy, ..	640
18	Shahzad Mir,	Sowar, 11th B Lancers, ..	
18	Garya Singh,	Sowar, 2nd Central I H, ..	589
20	Diwan Singh,	Natck, 39th B Infantry, ..	510
21	Aitdhaj Rai,	Lance-Headlar 43rd G L I, ..	500
22	Alla Baksh,	Bepoy, 2nd Sikh Infantry, ..	475
22	Ram Matan Choba,	Natck, 4th Bengal Infantry, ..	
24	Manya Bir,	Natck, 43rd G L Infantry, ..	
25	Bahader Gurang,	Bepoy, 1-3th G Regiment, ..	
26	Sayad Hajl Gul,	Natck, 6th Punjab Infantry, ..	

Higher Standard

1899

(Full Marks, 700)

1	Muhammad,	Duffadar, 6th P Cavalry, ..	628
2	Muhammad Khan,	Sowar, 11th B Cavalry, ..	610
3	Sant Singh,	Bepoy, 36th Sikhs, ..	601
4	Ganga Thapa,	Natck, 44th G L I, ..	636
	Ali,	Sowar, 1st Bengal Cavalry, ..	585
6	Gunga Singh,	Lee-Headlar, 37th Dogras, ..	578
	Iota Ram,	Headlar, 59th B Infantry, ..	578
8	Muhammad Khan,	Jemadar, 12th B Cavalry, ..	564
9	Khan,	Lee-Natck, 1st P Infantry, ..	569
	Muhammad Anam Khan,	Duffadar, 15th B Cavalry, ..	566
	Anwar Rung Thapa,	Headlar, 2-5th Goorkhas, ..	566
	Muhammad Khan,	Duffadar, 8th B Cavalry, ..	565
	Bokan,	Sowar, Gudea Cavalry, ..	564
14	Gulistan,	Lee-Natck, Gudea Infantry, ..	549
15	Gopal Gharte,	Lee-Natck, 1-5th Goorkhas, ..	535
16	Muhammad Han Khan,	Bepoy, Gudea Infantry, ..	
17	Fatah Khan,	Sowar, Punjab Cavalry, ..	520
18	Rahim-ud-din,	Sowar, 1st Punjab Cavalry, ..	512
19	Kasim Ali,	Sowar, Gudea Cavalry, ..	504
20	Ahmed Khan,	Duffadar, 15th B Cavalry, ..	496
20	Yarmukh Singh,	Sowar, 16th Ben Lancers, ..	490
22	Hedko Thapa,	Lee-Natck, 44th G L I, ..	485
23	Sultan Mahmud,	Sowar, 11th Ben Lancers, ..	458
24	Ali Baksh Khan,	Jemadar, 16th B Infantry, ..	458
25	Sant Singh,	Natck, 16th B Infantry, ..	453

YEARLY LIST

1881.

Rank	Name.	Rank and Corps.	Marks gained.	Remarks.
(Full Marks, 700).				
1	Sikandar Shah,	.. Sower, Guides Cavalry, ..	648	Higher Standard.
2	Sander Singh,	.. Sower, Guides Cavalry, ..	640	
3	Chot Singh,	.. Lee-Masck, 24th P Infy., ..	634	
4	Sachet Singh,	.. Sepoy, 15th Sikhs, ..	628	
5	Hoshnar Singh,	.. Lee-Masck, Guides Infy., ..	589	
6	Ganda Singh,	.. Sepoy, 25th Punjab Infy., ..	568	
7	Hazara Singh,	.. Sapper, Bengal S and M., ..	564	
8	Harnam Singh,	.. Sepoy, 6th Punjab Infantry, ..	564	
9	Manga Khan,	.. Lee-Masck, 4th Sikh Infy., ..	557	
10	Narayan Singh,	.. Sepoy, 44th Goochka Rifles, ..	556	
11	Hadraddin,	.. Sower, 12th Bengal Cavalry, ..	548	
12	Ram Singh,	.. Sepoy, 35th Sikhs, ..	541	
13	Bar Bhat Thapa,	.. Naick, 48th Goochka Rifles, ..	538	
14	Lachman Prasad Tiwari,	.. Sepoy, 1st Bengal Infantry, ..	539	
15	Adam Khan,	.. Sepoy, Guides Infantry, ..	538	
16	Nur Khan,	.. Naick, 2nd Punjab Infantry, ..	493	
17	Nabi Baksh,	.. Naick, 13th B Infantry, ..	487	
18	Mewa Thapa,	.. Sepoy, 44th Goochka Rifles, ..	477	
19	Ajodhya Singh,	.. Sepoy, 10th B Infantry, ..	474	
20	Yousaf Khan,	.. Sower, 6th Bengal Cavalry, ..	473	
21	Banke Pathak,	.. Sepoy, 11th B Infantry, ..	458	
22	Hasthir Rana,	.. Sepoy, 1-5th Goochka, ..	445	
23	Khem Singh,	.. Sepoy, 32nd Pioneers, ..	411	
24	Hend Lal Singh,*	.. Lee-Masck, 40th U Infy., ..	396	
25	Dusooda Singh,	.. Sepoy, 5th Punjab Infy., ..	389	

1882.

(Full Marks, 700).				
1	Mahendra Singh,	.. Havildar, 6th Bengal Infy., ..	661	Higher Standard.
2	Harnam Singh,	.. Sower, 4th Bengal Cavalry, ..	630	
3	Bhart Singh,	.. Duffadar, 3rd B Cavalry, ..	626	
4	Naur Khan,	.. Naick, Bengal S and M., ..	613	
5	Madho Prasad Tiwari,	.. Sepoy, 10th Bengal Infy., ..	506	
6	Ghulam Hamara,	.. Sower, Guides Cavalry, ..	498	
7	Abdol Ghaffar Khan,	.. Sower, 2nd Bengal Cavalry, ..	493	
8	Bostan Khan,	.. Sepoy, 3rd [redacted] Infantry, ..	458	
9	Sher Jang,	.. Naick, 1st Punjab Infantry, ..	440	
10	Uday Ram,	.. Lance-Masck, 6th Bengal I., ..	438	
11	Ghulam Muhammad Khan,	.. Lance-Duffadar, [redacted] C., ..	470	
12	Fauzdar Khan,	.. Sower, 1st Bengal Cavalry, ..	468	
13	Kamal Khan,	.. Sower, 2nd Punjab Cavalry, ..	468	

* Left College on 27th March, 1881.

YEARLY LIST.

1892.

No.	Name	Rank and Corps.	Age	Remarks
14	Shahban Beg, ..	Sowar, 2nd Punjab Cavalry,	449	
15	Bamrotha Singh, .	Naick, 16th Bengal Infy.,	483	
16	Sethar Khan, .	Lance-Duffadar, 1st P. C.,	437	
17	Datta Ram, ..	Naick, 16th Bengal Infy.,	426	
18	Ghulam Yousa Khan,	Duffadar, 15th B. Cavalry,	410	
19	Mahab Singh, ..	Naick, Guides Infantry, ..	403	
20	Wali Muhammad Khan,	Sowar, 6th Bengal Cavalry,	401	
21	Musahib Khan, ..	Duffadar, 17th Bengal C.,	401	
22	Muhammad Nao, .	Lance-Duffadar, Guides C.,	391	
23	Rampadath Pandey, .	Lance-Naick, 4th Bengal I.,	373	
24	Hambhadur Thapa, .	Sepoy, 54th Goorkha Rifles,	363	
25	Barhan Ali, .	Naick, 2nd Sikh Infantry,	355	
26	Hayat Bekhal, ..	Sepoy, Guides Infantry, ..	355	

1893.

(Full Merit, 700).

1	Adalat Khan, ..	Sepoy, 2nd Punjab Infy, ..	602	
2	Khan Mulla, ..	Sowar, Guides Cavalry, ..	585	
3	Karamat Khan, ..	Sowar, 1st Bengal Cavalry,	586	
4	Abdalla Khan, ..	Duffadar, 11th B. Lancers,	585	
5	Ghulam Nahi, ..	Sepoy, Guides Infantry, ..	575	
6	Gang Dyal Singh, ..	Naick, 2nd Bengal Infantry,	574	
7	Khan, ..	Sowar, 9th Bengal Lancers,	571	
8	Musahib Singh, ..	Lance-Duffadar, Guides Cav.,	566	
9	Waseem Singh, ..	Sepoy, Guides Infantry, ..	545	
10	Ram Singh, ..	Naick, 14th Bengal Infy.,	538	
11	Hayd Nasul, ..	Havildar, 28th Ben Infy.,	537	
12	Gardatt Singh, ..	Naick, 45th Bengal Infy.,	510	
13	Gingh, ..	Sowar, 2nd Punjab Cavalry,	514	
14	Tilay Bhundari, ..	Sepoy, 1-5th Goorkhas, ..	490	
15	Sedik Muhammad Khan,	Sowar, 4th Bengal Cavalry,	496	
16	Mahadeo Singh, ..	Sepoy, 17th Bengal Infy.,	496	
17	Ghulam Pandey, ..	Naick, 2nd Punjab Infantry,	492	
18	Aziz Khan, ..	Lance-Duffadar, 1st Ben L.,	492	
19	Bahawal Doo, ..	Sowar, 2nd Punjab Cavalry	488	
20	Mahab Singh, ..	Sepoy, 6th Bengal Infantry,	483	
21	Latt, ..	Lance-Naick, 6th P. Infy.,	479	
22	Fauzdar Khan, ..	Naick, 12th Bengal Infy.,	473	
23	Beglar Khawia, ..	Havildar, 3-2nd Goorkhas,	463	
24	Sher Muhammad Khan,	Lance-Duffadar, 17th B. C.,	463	
25	Kalla Singh, ..	Sepoy, 18th Bengal Infy.,	463	
26	Gopal Singh, ..	Havildar, 8th Bengal Infy.,	463	

Higher Standard.

Dead

YEARLY LIST.

1884.

Ranking in Examination.	Name.	Rank and Corps.	Marks obtained.	Remarks.
(Full Marks, 700)				
1	Mirza Dm.	Sapper, Bengal S and W.	588	Higher Standard.
2	Inder Singh.	Sepoy, 15th Bengal Infy.	588	
3	Dost Muhammad.	Sowar, 3rd Punjab Cavalry.	579	
4	Shiv Ram.	Sowar, Guides Cavalry.	566	
5	Jahangir Khan.	Sowar, 1st Bengal Cavalry.	554	
6	Baqi Singh.	Lance-Natch, 7th Ben Infy.	558	
7	Mahdi Khan.	Sowar, 9th Bengal Lancers.	552	
8	Isher Singh Gurung.	Natch, 1-1st Goorkhas.	547	
9	Rampadarath Singh.	Sepoy, 13th Bengal Infy.	544	
10	Manmohan Gurung.	Sepoy, 3-1st Goorkhas.	539	
11	Shola Singh.	Harildar, 6th Bengal Infy.	531	Higher Standard.
12	Hochme Singh Thapa.	Sepoy 3-2nd Goorkhas.	529	
13	Ghulam Ali.	Lance-Natch, 2nd P Infy.	517	
14	Krishnanand Tiwar.	Sepoy, 3rd Bengal Infantry.	516	
15	Kissan Singh.	Lance-Duffadar, 4th B Cav.	514	
16	Fateh Muhammad.	Duffadar, Guides Cavalry.	512	
17	Man Singh.	Harildar, Bengal S and W.	508	
18	Pandit.	Harildar 4th Punjab Infy.	507	
19	Ghulam Haidar.	Natch, 25th Bengal Infy.	505	
20	Abdul Subhan Khan.	Sowar, 3rd Bengal Cavalry.	498	
21	Mir Wali.	Lance-Natch, Guides Infy.	491	Higher Standard.
22	Mahammad Afzal.	Natch, Guides Infantry.	472	
23	Nayya Khan.	Natch, 1st Sikh Infantry.	471	
24	Malang.	Sepoy, 2nd Punjab Infy.	468	
25	Jamsher Khan.	Duffadar, 17th Ben Cav.	465	
26	Nargul Khan.	Harildar, 33rd Madras Infantry (2nd Burma Bn.)	455	

1885.

(Full Marks 700).				
1	Man Singh.	Lance-Natch, 11th B Infy.	588	Higher Standard.
2	Gajadhar Singh.	Sepoy, 2nd Bengal Infy.	582	
3	Jayrat Ali.	Sowar, 1st Punjab Cav.	579	
4	Mahmud.	Sepoy, 40th Bengal Infy.	566	
5	Surwar Khan.	Note Duffadar 15th B L.	551	
6	Rahmad Ali Ahmad Mir.	Duffadar, Guides Cavalry.	541	Higher Standard.
7	Mir Jafar.	Lance-Natch, Guides Infy.	531	
8	Abdul Wahid.	Sepoy, 33rd (2nd Burma) Madras Infantry.	517	
9	Wahid.	Sepoy, 33rd (2nd Burma) Madras Infantry.	512	
10	Musa Huss Khan.	Sowar, 6th Bengal Cavalry.	511	

YEARLY LIST.

1896.

Serial No. of Candidate.	Name.	Rank and Corps.	Mark obtained.	Remarks.
(Full Marks, 700)				
1	Sunder Singh,	• Sepoy, 21st Madras Infy.,	644	} Higher Standard.
2	Ayaz Khan,	• Lee-Duffader, Guides Cav.,	589	
3	Madho Ram,	• Lee-Nauch, 44th Gurkha Rifles,	589	
4	Shahk. Abdulla,	• Lee-Nauch, 4th Bombay L.,	585	
5	Ghulam Hussain,	• Lee-Duffader, Guides Cav.,	580	
6	Maana Singh,	• Sepoy, 5th Punjab Infy.	502	
7	Ashbar Singh,	• Lee-Duffader, 11th B L.,	498	
8	Dan Singh Soga,	• Rifleman, 89th Garhwal M.,	448	
9	Kumkhal,	• Sepoy, Guides Infantry, ..	438	
10	Nur Ahmad,	• Lee-Nauch, Guides Infy.,	438	

**ABSTRACT ■ RESULTS OF EXAMINATIONS OF ■ BY THE THOMSON
COLLEGE STAFF.**

[illegible]

[illegible]

LIST OF MEMBERS

THE MEMBERS WHOSE NAMES OF 1,000 RUPEES

1866	Lieut. A. C. Withers.	1871	Mr. E. E. [redacted]
1867	" " [redacted]	1872	" " O. Wingate
"	" " [redacted] Lillingston, M.A.	1873	" " M. Ballantyne
1868	Resign. E. C. [redacted]	"	" " A. E. Ward
1870	Capt. C. E. D. Branson.	1874	" " H. A. Graves.
1871	Lieut. F. L. [redacted]	1874	" " W. T. McLaughlin.

THE MEMBERS WHOSE NAMES OF 1,000 RUPEES

1868	Mr. W. D. [redacted]	1879	Mr. J. Wallace
1861	" " F. J. Williams.	1881	" " W. P. Honeden.
1863	" " C. B. Laupok.	1882	" " F. W. Vyall.
1864	" " E. A. Ebbold.	"	" " O. Oertel.
1865	" " [redacted]	"	" " Sukur Chand
1867	" " F. [redacted]	1886	" " Hale Ram
1868	" " H. Graves.	1887	" " F. B. [redacted] Lal
1869	" " C. [redacted]	1888	" " Mr. J. Eagleson
1870	" " O. Greenwood	"	" " Chandu Lal
1871	" " J. P. Scotland.	"	" " Bepin Behari [redacted]
1872	" " W. [redacted]	"	" " [redacted]
1873	" " E. W. L. Hawkins	"	" " Mr. J. [redacted]
1875	" " E. W. L. Toome	1889	" " Chhote Lal
1876	" " [redacted] Bandhyopadhyay,	"	" " Mr. T. B. Fitzpatrick
"	" " A.	"	" " Karbhari Sorabji [redacted]
1877	Mr. J. T. Farnham.	"	" " [redacted]
1878	" " C. S. B. Palmer.		

THE MEMBERS WHOSE NAMES OF 1,000 RUPEES

1866	Lieut. A. C. Withers	1876	" " [redacted] Green.
1867	" " W. B. Lillingston, M.A.	1877	" " L. J. S. [redacted]
"	" " E. [redacted]	"	" " B. C. Bonaloy
1869	Lieut. S. J. Dunlop	"	" " C. E. E. Palmer.
1870	Capt. C. [redacted]	1879	" " J. [redacted]
1871	Mr. E. P. W. [redacted]	1881	" " H. [redacted] James.
1873	" " [redacted]	1883	" " D. M. Lister
1875	" " A. J. P. Jones.	1885	" " O. [redacted]
1876	Lieut. W. T. McLaughlin.	1886	" " E. J. [redacted]

LIST OF PRIZES.

THE THOMSON GOLD MEDAL.—(Continued).

1885	Mr R. A. W. Phillips.	1891	Mr. H. [redacted]
1886	" B. [redacted]	1892	" J. W. [redacted]
1887	" A. H. Wollaston.	1893	" J. Stanbon.
1888	" H. W. Perry.	1894	" E. S. Christie.
1889	" H. W. M. Ives.	1895	" H. W. Joyce.
1890	Bepin Behari Chakravarti.	1896	" E. A. Scott

THE THOMSON GOLD MEDAL.

1869	Mr J. B. Specks	1897	Mr J. Toome
1863	" G. B. Leopold.	1898	" F. W. Vyall.
1864	" E. A. Sibold	1899	" G. [redacted]
1866	Lieut. A. O. Wither	1900	[redacted]
1867	Mr P. Nelson.	1901	Raja [redacted]
1868	" H. Graves	1902	Bhepat Rai.
1869	" O. Evans.	1903	" J. Eaglesome
1870	" J. S. Slater.	1904	P. S. [redacted] Lal
1871	Lieut. F. L. Graves.	1905	Bepin Behari Chakravarti.
1872	Mr W. Wilbocke	1906	Narendra Kumar Mitra.
1873	Lieut. H. A. Graves.	1907	Mr. H. M. [redacted]
1875	Mr. R. W. L. Toome.	1908	Obhote Lal
1876	" H. Granville.	1909	[redacted] Mullick
1877	" J. T. Farrant	1910	[redacted] Scrabyn Patuck.
1878	" C. S. R. Palmer	1911	Raghubar Prasad [redacted]
1879	" C. E. V. Goumont		

THE THOMSON PRIZE OF 300 RUPEES.

1866	Narayan [redacted]	1893	Raja Ram.
1867	[redacted]	1897	P. B. [redacted] Lal.
1878	Ganga Ram	1899	[redacted] Lal
1880	[redacted] Chakravarti, B. A.	1900	Bepin Behari [redacted]
1876	[redacted] Rangayathig, B. A.	1901	[redacted] Lal
1876	Rajjan [redacted]	1902	[redacted] Lal
1879	Surya Das, B. A.	1904	Kanharya Lal
1881	Brij [redacted]	1905	Karkhouna Sorabji [redacted]
1883	Rajewar [redacted]	1906	Raghubar Prasad [redacted]
1884	Fakir Chand,		

GENERAL MAGLAGAN'S PRIZE FOR [redacted]

1888	P. J. Williams.	1898	Private J. [redacted]
1889	W. [redacted]	1899	P. [redacted]
1895	" [redacted] Saunders.	1900	Gennar C. Evans (Extra)
1896	" [redacted]	1901	Mr. G. [redacted]
1897	" [redacted] R. R. [redacted]	1902	" E. Hodges
1900	" A. C. [redacted]	1903	" C. Evans.

GENERAL MEMBERS' LIST FOR TERRITORY DISTRICTS--(Continued).

1871	Thos. Sargent-Major W. Hill.	1881	Mr. W. H. Anthony.
1872	Mr. C. S. Sargent.	1882	" G. T. Anthony.
"	Corpl. E. S. Sargent.	1883	" O. Oertel.
1873	Lieut. F. L. Sargent.	1884	Mr. S. M. Sargent.
"	Private J. Sargent.	1885	Mr. S. M. Sargent.
1874	Mr. W. S. Sargent.	1886	Eda Rám.
"	Sargent G. Sargent.	1887	Gunga Rám.
1875	Mr. F. G. Fox.	1888	Mr. H. W. Perry.
1876	Lieut. W. T. McLaughlin.	1889	Mr. F. M. Perry.
1877	Mr. R. W. L. Fox.	1890	Mr. F. M. Perry.
1878	" C. B. Foxworth.	1891	Mr. O. H. Perry.
1879	" W. H. Bagley.	1892	Oboto Rám.
1880	" W. E. T. Bagley.	1893	Kanhuys Rám.
"	Sri Govind.	1894	Mr. S. M. Sargent.
1881	Mr. J. W. Bagley.	1895	Mr. S. M. Sargent.
"	" C. E. V. Bagley (Special).	1896	Baghbar Rám. Viceroy.

COL MEMBERS' LIST FOR CIVIL DISTRICTS.

1843	Mr. C. B. Leopold.	1873	Mr. R. W. L. Hawkins.
1844	Mr. F. D. M. Brown, v. G.	1874	Lieut. W. T. McLaughlin.
1845	Mr. G. W. Dodsworth.	1875	W. J. Green.
1846	Lieut. A. C. Brown.	1876	" W. J. Green.
1847	" F. Brown.	1877	" J. T. Ferrant.
1848	" E. Brown.	1878	" C. S. R. Palmer.
1849	" G. Brown.	1879	" J. Palmer.
1850	Lieut. H. R. Lott Carey.	1880	" W. P. Housden.
1851	" E. L. Green.	1881	" D. M. Lott.
1852	" W. L. Green.	1882	" O. Lott.

LT.-COL. MEMBERS' LIST FOR CIVIL DISTRICTS.

1853	Mr. O. C. Brown.	1883	Mr. H. W. Perry.
1854	" E. A. W. Phillips.	1884	" C. C. Brown.
1855	Mr. R. M. Brown.	1885	Mr. S. M. Sargent.
1856	Mr. R. M. Brown.	1886	Mr. F. M. Perry.

LT.-COL. MEMBERS' LIST FOR CIVIL DISTRICTS.

1857	Mr. R. M. Brown.	1887	Mr. H. W. Joyce.
1858	" E. A. W. Phillips.	1888	" E. A. W. Phillips.
1859	Mr. R. M. Brown.	1889	" E. A. W. Phillips.
1860	Mr. R. M. Brown.	1890	" E. A. W. Phillips.

LT.-COL. MEMBERS' LIST FOR CIVIL DISTRICTS.

1861	Mr. A. C. Verelst.	1891	Mr. H. W. Joyce.
1862	" E. A. W. Phillips.	1892	" E. A. W. Phillips.

LIST OF PRIZES.

RAJ RAHADAT BUNIA LAL'S PRIZES OF 25 RUPEES.

1876	Bodhi Lal	1888	Jagan Ray.
1877	Bhagat Singh	1895	Shankar Prasad, B.A.
1878	Bhagat Singh		

RAJ RAHADAT BUNIA LAL'S 1000 RUPEES

1876	Bhagat Singh	1887	Bhagat Singh
1877	Bhagat Singh	1888	Bhagat Singh
1878	Bhagat Singh	1889	Bhagat Singh
1879	Kanhaiya Lal	1890	Bhagat Singh
1881	Bhagat Singh	1891	Bhagat Singh
1882	Bhagat Singh	1892	Bhagat Singh
1883	Bhagat Singh	1893	Bhagat Singh
1884	Bhagat Singh	1894	Bhagat Singh
1885	Bhagat Singh	1895	Bhagat Singh
1886	Bhagat Singh	1896	Bhagat Singh

LADY MAYDOCK'S PRIZES FOR MECHANICS

1875	Mr B. J. Ramsay	1877	Mr B. C. Bousley.
1876	" H. B. Grant.	1878	" H. Claxton.

CAPT CUNNINGHAM'S PRIZES FOR APPLIED MECHANICS

1875	Mr H. Grenville	1877	Mr J. T. Farant.
	Lon-Serge A. B. Morgan.		Drummer A. Sullivan.

BADY PRIZES FOR MATHEMATICS

1879	Sergeon Doe, B.A.
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MR. PRIZES FOR MECHANICS

1874	Mr J. H. Wilham.	1875	Mr W. H. Doe
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LADY PRIZES FOR MECHANICS

1879	Mr J. Wilham.	1880	Mr H. W. Doe
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LADY PRIZES FOR SURVEYING.

1882	Mr D. M. Lathrop.	1883	Mr O. Cerial.
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KNIGHTS OF THE ORDER OF THE BATH.

1878	Leo-Corpl. C. Beach	1888	Mr E. T. [redacted]
1877	[redacted]	1889	Corpl. T. [redacted]
1877	Leo-Corpl. [redacted]	1889	Leo-Corpl. [redacted] Sykes.
1878	Private H. [redacted]	1891	" [redacted] F. W. Hart.
1878	Leo-Corpl. H. Goodwin.	1891	Sergt. J. H. [redacted]
1878	Mr. J. [redacted] O'Reilly.	1898	Leo-Corpl. E. G. Symons.
1888	" [redacted] T. [redacted]	1898	" [redacted] W. H. Tivy.
1888	" [redacted] [redacted]	1898	" [redacted] R. O. [redacted]
1888	" [redacted] F. A. Grant.	1898	Member H. Bailey.
1888	Syams [redacted]	1898	[redacted] J. Gyde
1887	Corpl. W. [redacted]		

LIEUTENANT, [redacted] FOR [redacted]

1888	Leo-Corpl. [redacted]	1888	Corpl. [redacted]
1878	" [redacted] J. F. Connell	1888	" [redacted] J. [redacted] Brown.
1879	Private H. Nichol.	1888	" [redacted] T. Murray.
1888	Gunner C. [redacted] Syme	1888	" [redacted] [redacted]
1888	Leo-Sergt. W. Chaloner	1888	Leo-Corpl. F. [redacted] Oult.
1888	[redacted] [redacted] Beaufort.	1888	[redacted] [redacted] Lyons.
1884	" [redacted] H. A. Boyd	1891	Leo-Corpl. F. W. Hart.

CAPTAIN [redacted] MEDAL [redacted]

1888	Sarandra Nath [redacted]	1888	Thacker [redacted]
1888	Corpl. E. Gray.	1888	[redacted] Den.
1888	[redacted] Dayal	1888	[redacted] Lal.
1891	Leo-Corpl. F. [redacted] Hart.	1888	[redacted] Den.

[redacted] MEDAL [redacted] CIVIL [redacted]

1888	Mr F. C. T. Miller.	1888	Leo-Corpl. [redacted] G. Symons.
1888	Leo-Corpl. F. A. Chitt.	1888	Sergt. E. O. [redacted] Botterill
1890	" [redacted] J. Sykes.	1888	" [redacted] [redacted]
1891	" [redacted] F. W. [redacted]	1888	" [redacted] W. E. Hardinge.
1893	" [redacted] [redacted]		

[redacted] KUNYA [redacted] MEDALS.

1887	[redacted] [redacted]	1888	[redacted] [redacted]
"	Jaganmuth	"	Daulat Ram
1888	Sarandra Nath Mitra.	1888	[redacted] [redacted]
"	Debi Sahay.	"	Tara Chand

LIST OF PRIZES.

RAI BANADUR KHYRYA LAL'S SILVER MEDALS—(Continued).

1884	Rai Dhan.
1885	Rai Singh.
1886	Ghulam Nabi.
1887	Fauzi Hassan.
1888	Jivan Mal.

LT.-COL. BANADUR'S SILVER MEDALS.

1884	Deta Sahay.
1885	Prasad.
1886	Latif.
1887	Rai.

LT.-COL. BANADUR'S SILVER MEDALS.

1877	Hadi Datta.
1878	Bhai Singh.
1879	Kash.
1880	Rai.

LT.-COL. BANADUR'S SILVER MEDALS.

1879	Rai.
1880	Abdolah.
1881	Gyan.

RAI BANADUR BHARAT LAL'S SILVER MEDALS.

1885	Kripa.
1886	Ali.
1887	Lal.
1888	Sahay.
1889	Wahid.
1890	Prasad Singh.

COLLEGE PRIZES

PRIZES.

1884	G.
"	Corpl.
"	Rai.
"	Fauzi Khan.
"	Gopal.
"	Jamal-ad-din.

1885	C.
"	R. E.
"	Chattopadhyay.
"	Gunner W.
"	Rai.
"	Shankar.

MILITARY MEN—(Continued).

1853	Sant Lal	1878	Kishu Ram.
1854	Lieut. T. M. [redacted]	1879	Singh J. [redacted]
"	[redacted] [redacted]	"	Bal Sarup.
"	Gunner J. A. [redacted]	1878	Private A. [redacted]
"	[redacted] Prasad	"	[redacted] [redacted]
"	[redacted] [redacted]	1879	[redacted] [redacted]
"	[redacted] [redacted]	"	Thakar Das.
1855	Star-Sergeant J. [redacted]	1877	Drummer A. [redacted]
"	Private [redacted] Gilmore.	"	[redacted] Singh
"	[redacted] Beg	1878	Lee-Corpl. [redacted] H. [redacted]
1856	Corpl W. Lenson.	"	[redacted] [redacted]
"	Sergt. J. [redacted]	1879	[redacted] J. [redacted]
"	Corpl J. Pearson.	"	Muhammad Imdad Hasan.
"	[redacted] (1)	1880	Bhagat [redacted]
1857	Corpl [redacted] [redacted]	1881	[redacted] H. D. [redacted]
"	[redacted] Chand.	"	[redacted] Ali.
"	Mangal Day.	1882	[redacted] J. O'Reilly
1858	Private W. Gill	"	[redacted] [redacted]
"	Aziz Shah	1883	Mr J. Harford.
1859	Corpl J. Calbert.	"	Chandi Prasad.
1860	[redacted] [redacted]	1884	Gajar Mall
"	[redacted] [redacted]	"	Mitr [redacted]
1861	Gunner D. [redacted]	1885	Prayag Das.
"	Sohan Lal.	"	[redacted] Ram (1)
1862	Sergt. [redacted] J. Flynn	1886	Mr G. Reynolds.
"	Gunner J. Turner (Extra).	"	Abdul Latif.
"	Corpl G. B. Newman (Special).	1887	[redacted] C. Jenkins.
"	" H. Egan (Special).	"	Jagannath
"	" A. Tate (Special).	1888	Mr [redacted] O. T. [redacted]
"	Tajammal Hussain	"	[redacted] Sahay
"	Private S. [redacted]	"	Lee-Corpl. F. A. [redacted]
1863	[redacted] Gans	"	Danist [redacted]
1864	Corpl [redacted] [redacted]	1889	[redacted] [redacted] Lyons
"	Ramji Lal	"	[redacted] [redacted]
1865	[redacted] E. Hodges	1890	Lee-Corpl. [redacted] W. Hart.
"	Sepoy Ali Budhaya (Special).	"	[redacted] [redacted]
"	[redacted] [redacted]	1891	Sergt. J. H. Patterson.
1866	[redacted] J. Higgins.	"	Ajaya Singh
"	[redacted] [redacted]	1892	Lee-Corpl. R. G. Symons.
1867	[redacted] [redacted]	"	[redacted] [redacted]
1868	[redacted] Taylor.	1893	Sergt. R. O. [redacted]
"	Anant Ray	"	[redacted] [redacted]
1869	Private J. [redacted]	1894	[redacted] [redacted]
"	[redacted] Lal	"	[redacted] [redacted]
1870	Sergt. G. Shaw	1895	[redacted] [redacted]
"	Mr. [redacted] J. Greer (Extra)	1896	Sergt. C. J. Gyles.
"	Choti Lal (1)	"	Jivan Mal.
1871	Private W. Hay		

LIST OF PRISONERS.

1853 H. J. [redacted]
 " Corp. [redacted]
 " C. [redacted]
 1854 [redacted] Lal.
 1855 [redacted] Chattopadhyay.
 1856 Corp. J. Lawson
 1858 Private G. Clarke,
 " Hirayan [redacted]
 1859 Corp. W. [redacted]
 1860 " D. Graham,
 " " Hayward
 " [redacted] Prasad,
 1862 Corp. J. Culbert
 " Khadun Ah
 1863 Sergt. W. Graham
 " Baldeo Prasad
 1864 [redacted] D. [redacted]
 " [redacted] Lal
 1865 Lieut.-Corp. C. [redacted]
 " [redacted]
 1866 Mr. P. Nelson.
 " Private G. [redacted]
 " Kandan Lal
 1867 Private H. Morgan
 " Ramji Das
 1868 [redacted] E. Hodges.
 " [redacted] Ah.
 1869 Corp. [redacted] Pearson.
 " [redacted] [redacted]
 1870 Corp. E. J. Tupple.
 " Asmit Ray.
 1871 Mr. I. [redacted]
 " Sadullah
 1872 [redacted] G. [redacted]
 " [redacted] [redacted] (2)
 1873 Private H. [redacted]
 " Fazl [redacted]
 1874 [redacted] Dayal.
 1875 [redacted] A. [redacted]
 " [redacted] Prasad.
 1876 [redacted] Gopal.

1876 Lakhpat Rty.
 " Private A. H. [redacted]
 " [redacted] M. [redacted]
 " [redacted] [redacted]
 " Lieut.-Corp. A. H. Rice.
 " [redacted] [redacted]
 " [redacted] [redacted]
 " [redacted] [redacted]
 " Ganpat [redacted]
 " [redacted] S. [redacted] Vivian.
 " [redacted] [redacted]
 1868 Mr. J. J. O'Reilly.
 " Gurdhar Lal.
 1869 Mr. T. Stewart
 " Balow Singh
 " Gujar [redacted]
 " Gopi Nath.
 " [redacted] Lal
 " [redacted] [redacted] (1)
 1866 Har. [redacted] Mukarp.
 " Jemah [redacted]
 1867 Gunner [redacted]
 " Bhagwan Das (1)
 " [redacted] Nath [redacted]
 " Dobi Sabay
 1868 Corp. R. Gray
 " Daulat [redacted]
 1869 Ram Dayal
 " [redacted] Chand
 " Lieut.-Corp. F. [redacted] Hart.
 " Radhan Lal
 1869 [redacted] Das.
 " Arjun Singh
 " Parmeshari Das.
 " Ajudhia [redacted]
 " [redacted] Lal.
 " [redacted] [redacted]
 " [redacted] Das.
 " [redacted] [redacted]
 " [redacted] C. [redacted] Gya.
 " [redacted] [redacted]

1855 [redacted] Duggan
 " Akhar [redacted]
 1856 [redacted] H. [redacted]

[redacted] Corp. [redacted]
 " [redacted] [redacted]
 " [redacted] Gopal.

FRIENDS—(Continued).

1884 [Redacted] Lal.
 1885 Gunner W [Redacted]
 1888 Sergt. H. Hall.
 " Corpl. E. [Redacted]
 1891 " P. Heywood.
 " [Redacted] Lal.
 1893 Corpl. L. G. [Redacted].
 " Ahmed Hasan
 1893 [Redacted] [Redacted]
 " Private H. [Redacted] (Entre).
 " Balmokand.
 1894 [Redacted] J. Patterson.
 " [Redacted] Lal.
 1895 Sergt. W. F. Flynn.
 " Tajammal [Redacted]
 1896 Private E. Follwood.
 " [Redacted] [Redacted]
 " Sergt. J. Ainsworth.
 " [Redacted] Lal.
 " Mr. E. Hodges
 " Shoo Narayan
 " [Redacted] P. [Redacted]
 " [Redacted] Ram
 1897 Corpl. E. J. Topple
 " Amrit Ray
 " Hakim Ali (Hawo)
 " Private M. Doyle (I)
 " Balmokand
 1899 [Redacted] G. [Redacted]
 " Sunder Singh.
 1898 [Redacted] H. [Redacted]
 " [Redacted] Dawn [Redacted]
 " [Redacted] [Redacted]
 1895 [Redacted] A. [Redacted]
 " Haril Lal
 1896 Gunner W [Redacted]
 " Thakur Das.
 1897 [Redacted] [Redacted]
 " Jadr Homin.
 1898 Lee-Corpl. A. H. Rice.

1899 Jugal [Redacted]
 1899 [Redacted] A. J. Ylaka.
 " [Redacted] Indad Homan.
 " Rami Lal
 " Lee-Corpl. H. [Redacted]
 " Mustique
 " [Redacted] J. J. O'Reilly
 " Girdhar Lal
 " [Redacted] [Redacted]
 " [Redacted] Singh.
 " [Redacted] E. J. [Redacted]
 " " [Redacted]
 " [Redacted] [Redacted]
 " Prayag Das.
 " Chayya
 " [Redacted] Reynolds
 " Joshua [Redacted]
 1897 Corpl. [Redacted] Stock.
 " Bhagwan Das (I)
 " Mr. F. C. T. [Redacted]
 " Debi Babay.
 1899 Lee-Corpl. F. A. Chit.
 " Daniel Ram.
 1899 Lee-Corpl. J. Sykes.
 " Parmeshur Das.
 1891 Lee-Corpl. W. W. Hart.
 " Radhai Lal.
 1892 Lee-Corpl. W. F. Gartram.
 " Arjun Singh
 1893 Lee-Corpl. E. G. Symons.
 " Muhammad Azun
 1894 Sergt. E. O. G. Bottomall.
 " Beni Ram.
 1896 Sergt. E. O'Farrell
 " Mr. W. E. Hardinge
 " Ghulam Nahu.
 " Tirath Ram.
 1898 Sergt. C. J. Gyle
 " Jivan Mal.

SURVIVING.

1893 Akbar Beg.
 1894 Mr. L. Bean.
 " " [Redacted] Homan.

1894 Staff-Sergt. P. Keay.
 " [Redacted] Gopal.
 1895 Madhusudan Chattopadhyay.

LIST OF PRISONERS.

SURVIVORS—(Continued).

1855	Gunner J H Sharpe.	1895	Mr. H. H. D. [REDACTED]
1856	" W Gatchouse	"	" [REDACTED] Ali.
[REDACTED]	Khwaja Abdur Rahman.	1898	" J. M. Taylor (Extra).
1859	Corpl W Lennox.	"	" " F W [REDACTED]
"	Sergt. P C. Carmichael.	"	" [REDACTED]
"	Muhammad Hussain	1898	Rev. C. Allan.
1860	Corpl F Burke	"	Munshi Lal.
"	Fateh Chand.	1894	Mr R. J. [REDACTED]
1861	Private W Gill	"	Debi Sahai.
"	Fash-ud-din	"	" [REDACTED]
1862	Corpl L. G. Bull	1896	Mr E A [REDACTED] Phillips
"	Muhammad Zakifree	"	" " F A. Grant.
1863	Gunner R. Marshall.	"	" [REDACTED]
1864	" D Stuart	1896	" C [REDACTED]
"	Behan Lal	"	" R. Butcher
1865	Sergt W J Flynn.	"	Joshua Ezekiel
"	Tajammal Hassan.	1897	Mr. F W. Schönmann.
1866	Private H. Clifton	"	" C Jenkins.
"	Din Dayal	"	Jagannath.
1867	Private J. H. Farley.	1898	Mr H W Perry
"	Ranjit Lal	"	" F. O T Mäller.
1868	Mr E Hodges	"	Debi Sahay
"	Muhammad Ali.	1899	Corpl B. Gray
1869	Private F Collins.	"	Daulat Ram
"	Sri Ram	1899	Begun [REDACTED] Chakravarti
"	Private W. Taylor.	"	Mr R [REDACTED] Dover
"	Fateh Chand.	"	" [REDACTED]
"	Gunner H. St. Aubyn.	"	Fortap Singh
"	Ahmad Beg (1).	1891	Mr. O B [REDACTED]
1872	Sergt W. Snow	"	Lee-Corpl [REDACTED] W Hart.
"	Karubai Singh.	"	" [REDACTED]
1873	Private W. Hay	1892	" [REDACTED] M T [REDACTED]
"	Amir Ali.	"	Sergt. J H [REDACTED]
1874	Muhammad Ibrahim.	"	Arjun Singh.
"	Private A. Anderson.	1893	Mr V Stanton
"	Ram Chandra.	"	Lee-Corpl E. G. Symons.
"	Debi Prasad (Extra)	"	Tulsi Ram
1875	Lee-Corpl [REDACTED] J. [REDACTED]	1894	Mr T S. Fitzpatrick.
"	Banna Ram	"	Sergt. B. O. G. Bottrell.
1877	Lance-Sergt. J. O'Neill.	"	Ganesh Ram.
"	Debi Singh	1895	Mr H. W. Joyce.
1878	Lee-Corpl. J. J. Connell.	"	Sergt. J Taylor.
"	Sada Nand.	"	Ram Narayan.
1879	Private H. [REDACTED]	1896	Mr. E. A. Scott.
"	Uttam Singh.	"	Sergt. C J. Gyde.
1880	Kishan Lal	"	Jivan Mall.

LIST OF PRISONERS.

DRAWING.

1853	Corpl J. Clarke.	1872	Mr W. [redacted]
"	" J Riley	"	Corpl G [redacted]
"	Mr. W. Sharpe.	"	[redacted] (2).
1854	Sheikh Beaba.	1873	Mr [redacted] W. L. [redacted]
"	Janna Dea.	"	Private W Hay.
1855	Gunner W Roberts.	"	[redacted]
1856	Mr W B Maerona.	1874	Leant. W T McLaughlin.
"	Corpl J Hurst.	"	Infant AIL
"	Gehund Prasad.	1875	Mr [redacted]
1858	Corpl. A. C [redacted]	"	Loc-Corpl [redacted]
"	[redacted] H. McG [redacted]	"	[redacted] Lal
"	Khwaja [redacted]	1876	[redacted] Gwyther.
1859	Sergt. P C [redacted]	"	[redacted] Gopal.
"	[redacted] [redacted]	"	[redacted] Das
1860	Corpl [redacted] Gansley	1877	Mr B C Bensley
"	Fateh Chand.	"	Lance-Corpl A. Thomas.
1861	Private J. [redacted]	"	Panjab [redacted]
"	[redacted] Lal	1878	Mr B L Heulig
1862	Corpl A [redacted]	"	Corpl H A. Rogers
"	Rhagwén Sahay.	"	Soda Band.
1863	[redacted] H. Marshall.	1879	Mr J. Willocks.
"	Private J Newland (Korea).	"	" A. J Ylke
"	[redacted] Muhammad	"	[redacted] Husen.
1864	Loc-Sergt [redacted] Dandop	1880	Namr Alt.
"	[redacted] Lal	1881	Mr. W. P Honaden
1865	Corpl. G Buchanan.	"	" H H D Johnston.
"	" H. Walker.	"	Attar Singh
"	Tajammal Hussein.	1882	Mr [redacted] F McLeod.
"	Sri Prasad.	"	" J J O'Reilly
1866	Leant J A. Little.	"	Kashur Bakhsh
"	Private H Clifton.	1883	[redacted] O Oertel.
"	Qr-Mr Sergt W Phillips.	"	[redacted]
"	Abdul Gani	"	[redacted] Lal
1867	Corpl. W. Wiseman	1884	[redacted]
"	Ramji Lal.	"	[redacted] Lynch
1868	Corpl. G [redacted] Sparks.	"	[redacted]
"	Baskar Lal.	1885	Mr E. A W. Phillips.
1869	Leant. H J Dandop.	"	Hura Lal
"	Troop Sergt-Major [redacted] Hall.	"	Nurul Islam.
"	[redacted]	1886	Mr O H Wollaston.
1870	Capt. C. E. D [redacted]	"	" G Reynolds.
"	Corpl. H [redacted]	"	Abdul Latif.
"	[redacted] Ali.	1887	F. B Chanda Lal.
1871	Mr J [redacted]	"	Corpl H Naylor.
"	[redacted] W. Pagan.	"	Badi Nath Sahai.
"	[redacted]	"	Jagannath.

DRAWING.—(Continued).

1888	█████ Ferry	1892	Abacha █████
"	" F. C. T. Miller	1893	█████ A. C. █████
"	Muhammad Yusuf	"	Lee-Corpl E. G. Symons.
1889	Lee-Corpl F. A. █████	"	█████ Asim.
"	Lajpat Rai.	"	Mr M. H. █████
1890	Mr R. W. Dover.	"	" W. L. █████
"	" J. R. █████	"	Dhani Nam.
"	Said Muhammad.	"	█████ H. W. Joyce
1891	Mr H. Hughes.	"	Lee-Sergt. A. D'A. McDonough.
"	Lee-Corpl █████ W. █████	"	Bashir Ahmad
"	Fateh Muhammad	1892	█████ H. A. █████
1892	Mr. J. W. Gilman.	"	" H. H. Fletcher.
"	Lee-Corpl. W. F. █████	"	Tika Nam

PHOTOGRAPHY.

1883	Private R. Jackson	1888	Mr J. Harford.
1889	Knight G. W. Martin	1894	" O. C. Olanbesh.
"	Sergt. J. McGeehy	"	Sergt. J. Hunter.
1870	Corpl H. Woodrille.	1895	Mr A. J. Wadley.
"	█████ M. B. Field	"	Corpl A. Fairweather.
"	Gunner E. St. Aubyn.	1896	█████ Bona
"	Sergt. A. █████	"	" F. W. Schönmann
1872	Lieut. H. A. Graves.	1897	Lee-Corpl W. J. █████
"	Sergt. G. Shaw.	"	Mr J. Eaglesome.
"	Ct-Sergt. J. Tuck	"	" T. C. T. █████
1873	Lieut. W. T. McLaughlin.	1898	" H. W. M. Ives
"	Private D. Kirk.	"	Lee-Sergt. H. Long.
1874	Mr W. J. Green.	1899	█████ Vermorel
1875	" █████ Grant.	"	█████ Lyons
"	█████ A. Learmonth.	1901	█████ O. B. █████
"	Mr B. C. Bensley	"	Lee-Corpl F. W. Hart.
"	Private H. J. Sharpe.	1902	Mr. J. M'F. Peters.
1877	Mr R. L. Hanson	"	█████ W. H. A. Cooper
"	Leuco-Corpl A. Thomas	1903	Chera Chandra Ray.
"	Mr J. B. Ives	"	Lee-Corpl E. G. Symons.
"	Lee-Corpl A. H. Ross.	1904	█████ G. E. █████
1879	Private H. █████	"	Lee-Sergt. E. J. Wallace.
1881	Mr. F. E. Gwyther.	1905	Mr. H. W. Joyce
"	" C. █████	"	Lee-Sergt. A. D'A. McDonough.
1882	" F. W. Vyeall.	1906	Triloke Nath.
"	" F. W. Wilkinson.	"	Sergt. C. J. Hyde.
1883	" O. █████		

1893 Muhammad Anna.

1901 ██████████.

1895 Bashir Ahmad

1896 ██████████

List of Donations to the Thomason College for Prizes and Miscellaneous purposes

	Names.	Supers.
	Subscribers to the Thomason Testimonial Fund,	
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1858	Lieut. T. Wright, 4th N I,	100
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"	Bailie, Artillery,	
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1862	Capt. W. H. Mackay, Highlanders,	100
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1865	Lieut. E. W. Samuels, General List, Infantry,	100
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"	G. Dodsworth, Esq.,	100
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"	Mr. S. Fraser,	
"	Sergeant P. Kelly,	
"	Lieut. G. Nolan,	
"	Mr. J. Ferris,	
"	Lala Behari Lal,	
"	Mr. C. Chisholm,	50
"	Mr. H. Mitchell,	

Year.										Rs.
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"	Serge. A. Forsyth,	-	-	-	-	-	-	-	-	25
"	Mr. J. H. Chapman,	-	-	-	-	-	-	-	-	25
"	Mr. G. McArthur,	-	-	-	-	-	-	-	-	25
"	Mr. J. Phillips,	-	-	-	-	-	-	-	-	25
"	Mr. W. Phillips,	-	-	-	-	-	-	-	-	25
"	Mr C Collogher,	-	-	-	-	-	-	-	-	25
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1873	Leut. G. Martin, 88th Regiment,	-	-	-	-	-	-	-	-	100
1873	W. Willocks, Esq., (to Engineer Student Mess),	-	-	-	-	-	-	-	-	100
"	H. Hodges, Esq.,	-	-	-	-	-	-	-	-	100
"	H. H. the Maharaja of Vizianagram,	-	-	-	-	-	-	-	-	100
1874	W. Smart, Esq., (Rev Ser) (for Surveying Prize),	-	-	-	-	-	-	-	-	100
"	L. Hawkins, Esq., (to Engineer Student Mess),	-	-	-	-	-	-	-	-	100
"	Leut. W. T. McLaughlin, 40th Regiment (to ditto),	-	-	-	-	-	-	-	-	100
"	Reginald H. McLaughlin, Esq., (to ditto),	-	-	-	-	-	-	-	-	50
1875	V. B. Paterson, Esq.,	-	-	-	-	-	-	-	-	100
"	S. James, Esq.,	-	-	-	-	-	-	-	-	100
"	F. J. McLaughlin, Esq.,	-	-	-	-	-	-	-	-	100
"	R. L. Campbell, Esq.,	-	-	-	-	-	-	-	-	100
"	R. W. L. Toose, Esq., (to ditto),	-	-	-	-	-	-	-	-	100
"	A. E. Adie, Esq., (to ditto),	-	-	-	-	-	-	-	-	100
"	S. M. Maycock, R.E., (for Mechanism Prize),	-	-	-	-	-	-	-	-	100
"	R. B. Smart, Esq., (Rev Ser) (for Surveying Prize),	-	-	-	-	-	-	-	-	100
"	W. A. Francken, Esq., Assistant Superintendent, Canal Foundry, (to College Recreation Fund),	-	-	-	-	-	-	-	-	50
1876	S. M. Maycock, R.E., (for Mechanism Prize),	-	-	-	-	-	-	-	-	50
"	Capt. Allan Cunningham, R.E., (for Applied Mathematics Prize),	-	-	-	-	-	-	-	-	50
"	to Kany Memorial, (balance of subscriptions)	-	-	-	-	-	-	-	-	1,000
1877	H. H. the Maharaja of Junagadh and Oshware,	-	-	-	-	-	-	-	-	100
"	Rajah of Rutlam,	-	-	-	-	-	-	-	-	50
"	Capt. Allan Cunningham, R.E., (for Applied Mathematics Prize),	-	-	-	-	-	-	-	-	50
"	Raj Bahadur Kumbha Lal, (to change the Press Endowment of 1870 to the "Raj Bahadur Kumbha Lal Gold Medal," awarded to Thomson Medal),	-	-	-	-	-	-	-	-	1,500
"	S. M. Maycock, R.E., (for Mechanism Prize),	-	-	-	-	-	-	-	-	50
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"	J. T. Farrar, Esq., (to Engineer Student Mess),	-	-	-	-	-	-	-	-	50
1878	G. Medley, R.E., (for Civil Engineering Prize),	-	-	-	-	-	-	-	-	50
"	Leut. S. M. Maycock, R.E., (for Mechanism Prize),	-	-	-	-	-	-	-	-	50
"	Major A. M. Brandreth, R.E., (for Note Book and English Prize),	-	-	-	-	-	-	-	-	100
"	Anonymous from Messrs,	-	-	-	-	-	-	-	-	100

Year.	Author.	Report.
1890	Colonel J. G. Medley, R.E., (for Civil Engineering Prize,) - - -	50
"	Lieut. S. M. Maycock, R.E., (for Surveying Prize,) - - -	50
"	Major A. M. Brandreth, R.E., (for Note Book, English, and Romanised Urdu Prizes,) - - -	70
"	Baba Krishna Chandra Banerji, (for Mathematics,) - - -	50
1891	Colonel J. G. Medley, R.E., (for Civil Engineering Prize,) - - -	50
"	Lieut. S. M. Maycock, R.E., (for Surveying Prize,) - - -	50
"	Major A. M. Brandreth, R.E., (for Note Book, English, and Romanised Urdu Prizes,) - - -	70
"	W. F. Hoaden, Esq., (to Engineer Student Mess,) - - -	100
1892	Colonel J. G. Medley, R.E., (for Civil Engineering Prize,) - - -	50
"	Lieut.-Col. A. M. Brandreth, R.E., (for Note Book, English, and Romanised Urdu Prizes,) - - -	70
"	Lieut. J. H. C. Harrison, R.E., (to Engineer Student Mess,) - - -	100
"	Lieut. J. H. C. Harrison, R.E., (for Surveying Prize,) - - -	50
1893	Colonel J. G. Medley, R.E., (for Civil Engineering Prize,) - - -	50
"	Lieut.-Col. A. M. Brandreth, R.E., (for Note Book, English, and Romanised Urdu Prizes,) - - -	70
"	Lieut. J. H. C. Harrison, R.E., (for Surveying Prize,) - - -	50
1894	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
1895	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
1896	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
1897	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
"	Raj Bahadur Kumbha Lal, to found 500 Medals for Natives of Upper and Lower Subordinate Classes, - - -	1,000
1898	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
"	Raj Bahadur Kumbha Lal, - - -	15
1899	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
1890	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Lala Behari Lal, (for Language Prize,) - - -	15
1891	Lieut.-Col. A. M. Brandreth, R.E., (for Civil Engineering, Note Book, and Estimating Prizes,) - - -	100
"	Raj Bahadur Kumbha Lal, (for Language Prize,) - - -	15
1892	Colonel F. D. M. Brown, V.C., (for Civil Engineering Prize,) - - -	50
"	Raj Bahadur Kumbha Lal, (for Language Prize,) - - -	15

<i>Year.</i>	<i>Names.</i>	<i>Amount.</i>
1892	Major J. Clibborn, (<i>for Civil Engineering Prize</i>),	50
"	Rai Bahadur Behari Lal, (<i>for Language Prize</i>),	15
1894	Major J. Clibborn, (<i>for Civil Engineering Prize</i>),	50
"	Rai Bahadur Behari Lal, (<i>for Language Prize</i>),	15
1895	Major J. Clibborn, (<i>for Civil Engineering Prize</i>),	50
"	H. H. the Maharaja of Vissanagram, (<i>for Athletics</i>),	40
"	Rai Bahadur Behari Lal, (<i>for Language Prize</i>),	15
1896	Lieut.-Col. J. Clibborn, (<i>for Civil Engineering Prize</i>),	50
"	H. H. the Maharaja of Vissanagram, (<i>for Athletics</i>),	40
"	H. H. the Prime Minister of Nepal, (<i>for a Tennis Clock</i>),	2,500
1897	Major J. Clibborn, (<i>for Civil Engineering Prize</i>),	50
"	H. H. the Maharaja of Vissanagram, (<i>for Athletics</i>),	40

ENTRANCE EXAMINATION PAPERS, 1906-07.

ENGINEER CLASS.

ENGLISH WRITING.

The candidate may choose two of the subjects given below. He should endeavour to excel in good sense and good English, not in quantity.

Hand-writing, spelling, and punctuation will be considered in awarding marks.

Subjects

- 1.—The Gordon Expedition.
- 2.—The necessity of employing private enterprise for the mitigation of widespread poverty.
- 3.—The benefits of an Engineering education even to those who do not enter the profession in the future.
- 4.—The Influence of Hope on the character and conduct of an individual.

HINDUSTANI.

The Hindustani passage is to be translated into fluent English, and where the literal translation differs from the literal rendering, the latter must be added in brackets, so that the meaning of each word may be made evident to the Examiner.

N.B.—In writing Hindustani words, the Devanagari character is to be used, otherwise half the marks will be deducted.

1. Write in good English:—

ایک روز کا ذکر ہے کہ کسی جگہ آندھی تڑپے زور و شور سے آ رہی تھی۔ ہر گھر میں
ہوا اٹھ رہی تھی۔ چاروں طرف آبی کھل چکا تھا۔ وہی تھی۔ ہندوستان میں پہلی
بار آب و تاب کیا رہی تھی۔ لوگوں کے گھروں میں مری کا سہا پہر رہا تھا۔
ہر گھر میں یہی کھل رہا تھا۔ ہر گھر میں یہی کھل رہا تھا۔ ہر گھر میں یہی کھل رہا تھا۔

کے کنارے پر ایک آباد سرا تھی جو نہایت بڑھک اور خوش بنا تھی۔ معمول کے مواقع وہاں بہت سے سالار آگے ہوئے تھے۔ مگر اس حادثے سے گھبرائے ہوئے تھے۔ سرا کے ایک کونے میں چھوٹا سا مکان بنا ہوا تھا۔ جس کے اندر کسی کوئی بھی نہیں ایک شخص بیٹھ رہی تھی۔ حالت میں ہلک پر بڑا ہوا تھا۔ اس کے سر ہاتھوں طرف دو ماسٹریں سرنگھوٹ پر بیٹھی ہوئی۔ دروازہ وہی تھیں۔ اور وہاں سے خوب صورت لڑکیاں جہاں آرا بیکم اور گیتی آرا بیکم چہکے چہکے نکلتی کرتی رہتی و مصیبت کر رہی تھیں۔ ایک دوسرے کو خدا کی بات دے رہی تھیں۔ تسلی کی باتوں سے دلکے ماحول پر سرگرم کر رہی تھیں۔ باہر کسی اور مکان میں ان کے لڑکے چاکر تھکے صاف سے پڑے ہوئے تھے۔ پتلی گھڑا رکھ کر ایک دھان گہڑے ہوئے تھے۔ دھانوں پر لڑکیاں آندھی اور طوفان کا دھڑکا کر رہی تھیں۔ کہ انہ میں اور بھی اس کی خدمت ہوئی۔ ہوا کے دھڑ سے مدح پور ہو گئی۔ چراغ گل ہو گئے۔ دھانوں گل الٹام الٹھڑے میں ایک دوسرے کی صورت دیکھنے سے دھان گھٹیں اکر چھ لڑکیاں کی حالت میں دھت کی کچھ تھیں نہ ہوئی تھی۔ مگر جب آدکے ہاتھوں اور چھوڑ پر اچھی کی چمک پڑتی تھی۔ پتھر رات سے یہ ایک ہی دھت میں سما پڑتا تھا ۔

3.—Decline in the singular and plural the noun رائے (opinion).

3.—Writes out in Urdu words and figures 92, 93, 99 and 150.

4.—Translate into Urdu the following sentences.—

- (a). I am in the habit of reading every day.
- (b). He may be playing.
- (c). He is about to come here.
- (d). Go to your place.
- (e). She went on writing.

5.—Give the future tense, Active Voice, and the past perfect, singular and plural of the verb لیک.

6.—Correct the mistakes, if any, in the following :—

- (1). لوستے میں چاکر میز پر رکھی ۔
- (2). مہمے سے کام نہیں لیتا ۔
- (3). لوستے سے چیز لیا ہے ۔
- (4). جب وہ آگ سے مہمے کر خیر ہو ۔

7.—What general rules are there for determining the gender of nouns in Urdu? Give examples.

8.—Rewrite the following sentences in colloquial Hindustani :—

- (a). Go to the bazaar and having bought spices return quickly.
- (b). As soon as it was evening he fastened the boat to the shore.

- (c). If your character had been good the Magistrate would have certainly ~~been~~ in good luck.
- (d). In my opinion he has not understood the matter.
- (e). How many times have you been told not to do this but you will ~~not~~ obey.

LATIN.

1.—Translate into English—

_____ die castra promovit et milibus pecuniarum ex a Caesaris castris sub _____ pecuniis ejus _____ preter _____ suas copias reduxit, et _____ pecuniarum _____ _____ fecit, eo consilio, uti frumento comestisque, qui ex Sequanis et Haedus subporteretur, Caesarem _____ Ex eo _____ dies _____ quinque Caesar pro castris suas copias produxit, et eorum instructam habuit, ut, si vellet Ariovistus proelio contendere, ei potestas _____ daretur. Ariovistus _____ _____ castris continuat, equarum proelio quotidie contendit.

Give person, number, tense, mood and _____ of _____ of the following _____ as they _____ in _____ passage—promovit, intercluderet, fecit, daretur, subporteretur.

2.—Translate into English—

Dum hinc apud Caesarem geruntur, Labienus _____ supplemento, quod nuper ex _____ venerat, relicto Agendii, ut _____ impedimentis praesidio, cum quattuor legionibus Lutetiam proficiscitur. _____ oppidum Parisiorum, positum in insula _____ Sequana. Cujus adventu ab hostibus cogito, _____ ex _____ civitatis copias _____ _____ impendi _____ Camulogene Astero, qui, prope confectus aetate, tamen propter singularem _____ rei militaris _____ _____

Give an example of the ablative absolute from the above passage.

_____ name of "Lutetia," _____ what of the river "Sequana."

_____ legio, finem, adventus.

_____ Translate _____ English _____ only _____ the _____ following passages:—

- (1). "O dea, si prima repetens ab origine pergam,
Et _____ nostrorum _____ laborum,
_____ elance componat Vesper Olympo,
Nos Troja antiqua, si vestras forte per arces

Troas mœnia sit, etiam per aquæa mœnia
 Paphia aut Labrys tempestas appulit. *Æneas*
 puer *Æneas*, reptos quo in *Labyris* penates
Æneas mœnia mœnia, *Æneas* mœnia mœnia
 Tullius quero patriam, genus ab Jove sumens
 Et dicit Phrygium mœnia navibus egredi
 Mœnia aut mœnia viam, *Æneas* mœnia
 Vix septem convalescunt undas *Æneas* superant.
 Ipse ignotas, *Æneas* Labys deserta
 Europe atque *Æneas* pulvis."

- (H). " *Ille* classem *ibi* aptare iubebat
Anchises, *hinc* vento mora ne qua ferenti.
Quam *multis* interpres multo compellat honore,
 'Conjugo, *Anchises*, *Veneris* dignate superba,
 Cura *dedus*, *hic* Pergamene crepto ruinas,
hic tibi *Aesonis* talibus hanc arripe vela.
 Et *hic* *hic* pelago praeterlabere necesse est:
hic *hic* pars *hic* proci, quam pendit Apollo.
 Vade,' at, 'o felix nati potate! quid ultra
 Provehor, *hic* fando surgentes demoror Austros?'
hic *Andromache*, digressu *hic* *hic* supremo,
hic picturatas auri *hic* *hic*
 Et Phrygiam *Aescan* *chlamydem*, nec cedit honori;
 Textibusque *hic* *hic* donis, ne talia *hic*.

—In the Foghat—

Foris in ~~_____~~ tam exardibus sunt trigeminis fractura nec ~~_____~~
 nec viribus dispares. Horatios Caristiosque fuisse ~~_____~~ constat, nec
 ferre ~~_____~~ antiqua ~~_____~~ nobilior: ~~_____~~ re tam clara nominum
 error manet, ~~_____~~ populi Horatu, ~~_____~~ fuerunt: ~~_____~~
 utroque trahunt: plures tamen invenio, qui ~~_____~~
 hos ~~_____~~ sequar, undeas animas. Omnes trigeminis agunt reges, ~~_____~~ pro
~~_____~~ quisque patrie ~~_____~~ ferro: ibi imperium fore, unde ~~_____~~
~~_____~~ recusatur. Tempus et locus convenit. Præquam duri-
 carunt, ~~_____~~ ictum ~~_____~~ in ~~_____~~ his legibus, ut,
 cujusque populi ~~_____~~ eo ~~_____~~ violarent, in ~~_____~~ populo sum ~~_____~~
 pace imperitaret.

Which were the two peoples to whom the Hernici and Caurii belonged? What was the result of the conflict between them?

4.—Render into Latin—

- (a). [] said this [] order that he might deceive the ambassadors [] the enemy.
- (b). These things were carried out before Caesar had arrived from [].
- (c). When he saw that the hill had been [] by the enemy [] ordered that the whole of his line of [] advance.
- (d). [] [] beginning [] great [] [] birds cross [] [].
- (e). During the consulship of Cnaeus [] Proculus a treaty was made with the Hernici.

SANSKRIT.

1.—Translate into English [] following extracts:—

(a). अक्षिपितो नाम जगद्वत् । तपावन् ब्रह्मपुत्रस्तथा । स्त्रीतत्कार-
चनाः षोडशः । तेषु स्त्रीषाम् न जगद्वत् वर्षाणि द्वादश दृश्यन्ताम् । स्त्रीष्वार-
[] [] वर्षाः, न जगद्वत् । [] स्त्रीष्वार-
जगद्वत् षड्विंशति वर्षाणि, विरक्षितं कन्दमूलकं जगदीनाः जग-
द्विंशतिः कन्दमूलकानि, कन्दमूलकानि तत्पुत्रानि जगदीनाम् जग-
[] वर्षाणि दृश्यन्ताम् । जगदीनाम् जगदीनाम् जगदीनाम् जगदीनाम्
जगदीनाम् [] जगदीनाम् जगदीनाम् जगदीनाम् जगदीनाम्

(b). अक्षयिणी धातुर्विद्यया अक्षयिणीध्वजः कश्चित्तत्पुत्रस्तथा ।
बहुधा यमानध्वजस्तथा कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा ।
कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा ।
कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा ।
कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा । कश्चित्तत्पुत्रस्तथा ।

1.—Translate into English—

خبردارے وطنی کو کہ ثنائے تو کہیں
توصیف کمال کیجیے تو کہیں
جائے کہ توہمات عدائے تو کہیں
جہیزہ بھائیہ کہ توہمات کی نیست

ایسی را ہوئی نمرہ و گزشتہ سربلند ہوگا آذربائی تصنیف عبارت است و
اولیٰ است کہ گزشتہ کو مائعات و کفر و تب و تاب غنائی معروض کتب تواریخ و تصنیف احوال
و ایک پوداختہ درجے او روزگار خود را در آن کار بہانہ نمرہ اندہو ہالہندہ تصنیف ستر و
اخبار را تصنیف انام صلی اختلاف و تادم مولد ہندوار است و این سر
ہمہ داعیگی کتب نمرہ ہندہ حقیقت مائعات احوال عہد نمرہ سرگندہ ایام
گندہ را درجے گزشتہ حالی او مائعات مکرر ہندہ و در دلی احوال دیگران ہما ہندہ
کہ لائیک ہذا ہندہ ہندہ و اختیارات ہندہ ہما در شرح احوال عہد ہندہ ایام ہندہ
ہما است کہ ہندہ او حالات و احوال عہد کہ ہر ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ
و ہندہ اخبار اختصار ہندہ ہندہ ہندہ و آرائش عبارت صورت مائہ ہندہ ہندہ
گزشتہ و ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ

2.—In the above extract—

(a). Point out all Arabic words and give out their English meanings

(b). Analyse the top complete.

(c). Write out the pronunciations of—

ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ

(d). Mention the kind of final and give an example of each

(e). Give the of following—

ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ ہندہ

3.—Translate into Persian—

Among these confined with Joseph two persons, one a baker of the king's household, who for some time was in prison. Each had a remarkable dream, which Joseph interpreted. The baker should be hanged. And the other was according to his interpretation. Two years after that, Pharaoh had a significant dream, and after trying in vain to obtain an interpretation of it from the wise men of Egypt, he asked of Joseph by whom he was immediately sent for, and after hearing his dream interpreted

■ ■ signify the approach of a seven years' famine immediately succeeding
 ■ ■ period ■ plenty, and, at ■ ■ same time, ■ ■ ■ ■ ■ ■
 ■ ■ the appointment of ■ ■ ■ ■ person ■ ■ make provision for ■ ■
 season of want, by laying by one-fifth of ■ ■ ■ ■ produce ■ ■ ■ ■ land
 during ■ ■ season of plenty.

1.—Translate into English—

حكي أن رجلاً اشترى مائة خرافة يا مولاي أريد منك أن تغفر لي—أحد عيال لا يملأني من الصلوات إذا دخل وقتها—والثاني أن تستعصمني أنا وأهلي وأولادي—والثالث أن تجعلني بيتاً ينفذ عنه أحد عيوني—فكرت لك ذلك فافهم أني قد فعلت—فطف بها حتى رأيت بيتاً خراباً فاشترته—فبناؤه مرة أخرى—أخبر أصحابي—فقال يا مولاي لتعلم أن أصحابي يكون مع الله عزواً—وقد كان صواباً فقام يا بني الخيل—هي منسقة الخيل التي تخدمه جميع المشركين—والله—فما انتصف الليل وتفرق أصحابه فلم يبق في الغار نوح عليل—فهرأ العالم—فأدانيها ففعلت من عور صلت من السماء والشمس—في السور ففعلت في ربه—هو قولك يا مولاي أرجو أن علي خدمتي مولاي ففعلت لك ما أهتمت—فجئت لك لاني وبها في فاعلمني ربي =

2.—Re-write the above [redacted] [redacted] vowel marks as carefully as you [redacted] possibly manage.

3.—Mention **the** changes that the following have undergone, refer **to** the grammatical rules and **give** other examples —

[illegible]

■ — Analyse the following after the Arabic fashion —

مقاله در مورد امنیت ملی

5.—How do the Arabic and the English divisions of the parts of speech compare each other, and which parts of the latter are included in the former? Illustrate your answer by examples.

8.—Translate into Arabic and supply your translation with disjunctive marks—

Jafar was the third son of Almutahb and was a cousin of the Arabian Prophet. He resembled the Prophet most, in his looks and manners. He was one of the earliest converts to Islam and was much esteemed by the Prophet. In the forty-first year of his life he was killed in the Battle of Mootah, A. H. or 629 A. D. The loss of his cousin, Jafar, affected the Prophet deeply. He was a man of great intelligence.

of the death of Jafar, the Prophet proceeded to his house, and calling
his children round him tenderly and burst into a flood of tears.

N.B.—Numbers in the above extract must be translated in words and not in figures.

PHYSICS

1.—What is meant by saying that any given body possesses energy? Distinguish between the two kinds of energy, which it is possible for a body to possess, the energy of a body being temporarily exhausted, how can it be renewed?

2.—A vessel containing pounded iron is placed over a steady supply of heat which warms the whole of the iron steam. A thermometer is kept in the steam. Does it show a steady rise of temperature throughout the operation? If not, what interruptions in the steady rise will occur, and why?

3.—Describe a prism, and also a lens, and draw diagrams to illustrate the action of each on a ray of light passed through them.

4.—Write down instructions for charging a Grove's battery, giving directions for whatever precautions are necessary.

5.—Describe an experiment by which two salts which have been thoroughly mixed can be separated by crystallization. Does the operation take place in nature?

6.—Why is it that a piece of coloured glass is dipped in a solution of bleaching powder is bleached, and what further operation is necessary for it to become so?

7.—Account for the formation of mountain ranges on the earth's surface, and the variety of the rocks of which they are composed.

8.—Explain by the help of a diagram how the inclination of the earth's axis produces the alternations of the seasons, and show how the axis would be inclined if the earth's axis were upright. To what plane is the axis inclined?

PHYSICS

1.—Enumerate the chief forms of energy, and explain clearly the principle of the conservation of energy, as—mechanical equivalent of heat, equivalent of electrical energy, &c., and experiments which illustrate the principle of the conservation of energy.

2.—Give a full explanation of the principle in which the mercury in a barometer is supported. Why is mercury the liquid generally employed? How is the height of the mercury column affected—(1) by changes in temperature, (2) by the diameter of the tube, (3) by the impurity of the mercury, (4) by the degree of freedom of the mercury at the top of the tube?

3.—200 grammes of water at 10°C are mixed with 50 cub. cm. of milk of density 1.03 at 15°C , contained in a copper vessel of thermal capacity equal to that of 5 grammes of water, and the temperature of the mixture is 37°C . If all the heat lost by the water is gained by the milk and the copper, what is the specific heat of the milk?

4.—Account for Fraunhofer's lines in the spectrum, and explain how they have developed into a powerful method of analysis.

5.—Draw diagrams illustrating the following types of dynamo machines—(1) separately excited, (2) series wound, (3) shunt wound, (4) compound wound, and state the particular work for which the two latter types are used, showing why they are especially suitable for that work.

6.—What characteristics distinguish electric force from the other forces of nature, and in what variety of ways does it manifest itself?

7.—Enumerate the allotropic modifications in which sulphur is found to exist; describe its behaviour on being heated, on being allowed to cool, and on being poured into cold water when hot, and state its chief commercial uses.

8.—Name and give the chemical formulae of the chief oxy-salts of Potassium, describing their method of preparation and their chief properties.

9.—Explain the following terms—Isomerism, allotropy, a weak acid, a neutral salt, fractional distillation, trichloro.

10.—Distinguish between crown-glass and flint-glass. What is a green tinge in glass due, and how is a colourless glass obtained?

EXERCISES

1.—Construct a plain scale of 15 feet to an inch; draw a line, and set off a distance of 85 feet.

2.—Construct a regular hexagon of 1 inch side, reduce it to a

triangle of equal area, and construct a square, with an area equal to one-half of the triangle.

3.—Make a drawing of the following printing —

WEATHER.

Simla, October 28th, 1898.

"The barometer continues to fall."

4.—Find a line which shall have the same area as a line 2 inches long, and 2.75 inches or 1.5 inches.

5.—Construct an ellipse by means of arcs of circles, major axis 4 inches.

6.—Construct an isosceles triangle, with vertical angle 75° and base 4 inches (Find angle without the use of a protractor).

NOTE.—All answers to be obtained by Geometrical construction. Lines of construction to be left in pencil. No marks given for sketches with explanation.

HISTORY.

1.—Name the four grand epochs in the history of England from the invasion of Caesar to the accession of William III.

2.—Who was Prime Minister to Henry VIII? State his policy.

3.—Mention the most remarkable events in the reign of Edward III., and state what grounds he asserted his claims to the monarchy of France? What law destroyed his claims?

4.—Give short explanations of the following historical terms:—"Star Chamber," "The Parliament," "Statute of the Articles," "Ship Money," "Long Parliament," "Test Act," "Peace of Paris".

5.—What battles took place in the reign of George III.? Mention all you know of them, and mention their separate commanders and the result of each.

6.—When did the British take Gibraltar into the hands of the English? Mention the other big war was taking place at the same time.

- 7.—State what you know of the following:—Bakran Khan, [redacted] Dynasties, [redacted] Khilji Kings [redacted]
- 8.—Who was Akbar [redacted] how did he treat the Rajputs? [redacted] you know of his character.
- 9.—Give a short [redacted] of [redacted] "Invasion [redacted] India by Selenkus," "Bactrian Greeks," "The Empire of Magadha"
- 10.—Sketch briefly [redacted] outline of [redacted] John Lawrence's administra-

ARITHMETIC.

1.—Simplify—

$$2 + \frac{\frac{20}{25} - \frac{1}{25}}{\frac{215}{75}} - \frac{1}{207} \text{ of } 5\frac{1}{2} \text{ of } 10\frac{1}{2} \text{ of } \frac{1}{15} \text{ of } \frac{1}{10}$$

2.—(a). Find the value of—

$$\frac{1}{5} = .47 \text{ of } [redacted] 2s. 8d. + .61 \times .101 \text{ of } [redacted] 10s. 6d.$$

(b). $\frac{[redacted]}{10 \ 810 \div 10} + \frac{8d \times 375}{1p \text{ of } 699461 \text{ of } \frac{1}{2}} + \frac{[redacted]}{11 \ 00}$

3.—Find, by Practice, the value of—

$$14 \text{ ac } 3 \text{ ro. } 26\frac{1}{2} \text{ per. } @ \text{ £} 52 \text{ 7s. } 6d. \text{ per acre.}$$

4.—If [redacted] of [redacted] = 3 ro. 14 per. be £157 5s. for 1 year and [redacted] days, of how much land will the rent be £125 10s for [redacted] days?

5.—A [redacted] buys $8\frac{1}{2}$ [redacted] [redacted] at 17 guineas per cwt. [redacted] sells 3 cwt. [redacted] at at [redacted] 3d. a pound, and the [redacted] at 2s. $2\frac{1}{2}$ d. a pound; how [redacted] he gain?

6.—What is [redacted] of a [redacted] due [redacted] hence, [redacted] present worth be £2,350, and [redacted] rate of interest [redacted] $4\frac{1}{2}$ per cent.?

7.—£2,500 = invested = the [redacted] per cents. [redacted] [redacted] is [redacted] wards [redacted] [redacted] and the money is put [redacted] [redacted] 4 per cent [redacted] change = [redacted]

8.—Find [redacted] root of 1204971634944, [redacted] [redacted] root of 14 [redacted]

9.—A force of police, 1,921 = number, = [redacted] among [redacted] = proportion to the populations, which are respectively 4,150, 12,450, 24,900 [redacted] 29,050, how [redacted] [redacted] to [redacted] town?

10.—Two [redacted] [redacted] boys are employed on a piece of work, [redacted] do $\frac{1}{2}$

of it in 6 days. After this, 1 more man and 1 more boy are put on, and the work is done in 5 days, how many more men must be put on that the whole work be finished in 1 day more?

ALGEBRA.

1.—Eliminate x, y, z , from the equations—

$$\frac{y-z}{y+z} = a, \quad \frac{z-x}{z+x} = b, \quad \frac{x-y}{x+y} = c.$$

2.—Solve the equations—

$$(a) \quad \left(\frac{x-y}{x+y}\right)^2 = \frac{x-2y-z}{x+y+z}.$$

$$(b) \quad \frac{x}{y} + \frac{1}{2x} = \left(\frac{x}{y} + \frac{1}{x}\right)^2 - \frac{3}{2}.$$

$$(c) \quad x^2 + y^2 = 13, \quad 2x - xy + 2y = 4.$$

3.—If a and β be the roots of the equation $ax^2 + bx + c = 0$, form an equation whose roots are $\frac{1}{a}$ and $\frac{1}{\beta}$.

4.—An express train sets off to London one hour after a passenger train with uniform speed; at the end of the first hour an accident occurs which delays it one hour, and reduces its speed in the ratio of 1 to 2. It arrives at the second station three hours behind time. If the accident had occurred 50 miles further on, the train would have arrived $1\frac{1}{2}$ hours sooner. What is the distance apart of the stations?

5.—Solve the following —

$$ys - z^2 = cy + 2x.$$

$$zx - y^2 = ax + cz.$$

$$xy - z^2 = 2x + cy.$$

6.—Find p and q in terms of a and b , so that $\frac{pa+qb}{p+q}$ may be a harmonic mean between p and q , and the Geometric mean \sqrt{pq} a harmonic mean between a and b .

7.—There are n things of which p are alike and $n-p$ are unlike; find the number of combinations of them taken r at a time.

8.—The number of permutations formed of the letters of the word Mississippi.

9.—The sum of n in the 3rd and 5th terms of $(1-x)^n$ are $\frac{16}{3}$ and $-\frac{7}{24}$ respectively. Find n .

2.—Find the sum of the squares of the co-efficients in the expansion of $(1 + x)^n$, where n is a positive integer.

GEOMETRY.

1.—Define the following terms.—A plane figure, an angle, a polygon, an oblong, an arc of a circle, a sector of a circle, annular rectilinear figures, of a figure.

2.—In an isosceles triangle ABC the terminal angles at the base are equal, and hence the sides AB, AC are produced, the external angles at the base are equal.

3.—To draw a straight line parallel to a given straight line from a given point without it.

4.—The angle at the centre of a circle ACB, is double of the angle ADB, in the circumference, standing on the same arc AB.

5.—To describe a circle about a given triangle ABC.

6.—In a right-angled triangle ABC, if a perpendicular BD be drawn from the right angle B to the opposite side, the triangles ADB, BDC, on each of it, are similar to the whole triangle and to each other.

7.—To draw a straight line at right angles to a given plane from a given point in the plane.

8.—ABC is a circle. Show how to divide it into three equal areas.

9.—AB is a straight line divided into unequal parts at C, draw any line CD such that the square on CD equals the rectangle AB, BC.

TRIGONOMETRY.

1.—Find the area of a circle of diameter 2 which subtend at the centre the following angles—(1) $41^\circ 26'$, (2) $5^\circ 47'32''$, (3) the angle whose circular measure is $2\frac{1}{2}$.

2.—Prove that if the sides a and b of a plane triangle subtend an angle $C = 60^\circ$, then $\cos(60^\circ - B) = \frac{a+b}{2c}$ and also that if $\sec(\frac{1}{2}A + \frac{1}{2}B) + \sec(\frac{1}{2}A - \frac{1}{2}B) = 2 \sec \phi$, then $\cos \phi = \frac{1}{\sqrt{2}} \cos \frac{A}{2}$.

3.—Determine x in the equation—

$$\tan x \tan x = \tan^2 (x + x) = \tan^2 (x - x).$$

4.—(a). Find the value of $-2 \tan^{-1} \frac{1}{2} + \tan^{-1} \frac{1}{3} + \tan^{-1} \frac{1}{4}$

(b). Find the size of the angle expressed by—

$$\cos^{-1} \frac{53}{65} + \tan^{-1} \frac{1}{2}.$$

5.—Given $\log_{10} 8 = .6989700$, find the logarithms to base 10 of
 .0128, and $(.084)^{\frac{1}{2}}$

6.—The lengths of the straight lines which join three points A, B, C, are known; at any point P in the plane of A, B, C, the angles APC, BPC, are observed, show how to find the distance of P from each of the points A, B, C.

7.—From a point between the bases of two equal chimneys, the chimney-top's elevation is 60° . At the same distance horizontally and at right angles to the line joining the elevations of the tops are 45° and 30° . Find their distance apart.

8.—Prove that in any triangle, if S be the centre of the circumscribing circle, and O the intersection of the perpendiculars let fall from the angles on the opposite sides, then

$$SO^2 = R^2 (1 - \cos A \cos B \cos C)$$

where R is the radius of the circumscribing circle.

9.—Prove that the sum of a triangle is

$$\frac{1}{2} (a^2 \cot A + b^2 \cot B + c^2 \cot C).$$

MENSURATION.

1.—The sides of a pentagon, taken in order, are 100, 180, 187, 188 and 100 feet, and the two diagonals measured from the vertex of the first side are 100 and 180 feet, find the area of the figure.

2.—The base of a prismatical solid is a square, and the top a regular octagon, four alternate sides of which are parallel to the sides of the base. The height of the solid is 6 feet, the sides of the base are 5 feet, and those of the top are 1 foot, find its volume.

3.—A square field contains 31 acres, 1 rood, 16 square poles; find the length of a side, and of the diagonal.

4.—The section of a canal is 32 feet wide at the top, 16 feet at the bottom, and 8 feet deep; how many cubic yards are excavated in a mile of the canal? Also, if the surface of the canal is 16 feet wide, find its depth.

5.—Find how many gallons are contained in a vessel which is in the form of a right circular cone, the radius of the base 12 feet, and the height 17 feet.

6.—A sheet of gold is hammered so as to cover an area of 1 acre. Find the thickness of the gold in decimals of an inch, rounded to the first two significant figures.

7.—Find the area of the space between four equal circles whose centers are at the corners of a square, each circle being tangent to the other, their radii being equal to a side of the square.

8.—A hollow circular cylinder of cast-iron is 31.43 feet in circumference, and 12 inches in diameter inside, and its thickness, weight, if one foot of the iron weigh 441 lb.

9.—A tent is made in the form of a frustum, surmounted by a cone. The diameters of the base and top of the frustum are 14 and 7 feet, the height 3 feet, and the height of the tent 12 feet; find the quantity of canvas required for it.

10.—An octagonal stone pier stands on the foot of a sloping bank of grass which is inclined to the horizon at an angle of 45° ; the line of intersection of the slope and the ground is parallel to one face of the pier, 8 feet in advance of it. If the pier be 8 feet high, and 8 feet in perimeter, what proportion of its volume is above the bank?

UPPER SUBSIDIARY CLASS.

EXERCISES.

1.—Reduce each of the following fractions to its lowest terms:—

$$\frac{48287}{1000000}, \quad \frac{7200}{1000000}, \quad \frac{18750}{1000000}, \quad \frac{1}{1000000}$$

2.—Express in the decimal form the following vulgar fractions and mixed numbers:—

$$\frac{1001}{1000000}, \quad \frac{8051}{1000000}, \quad \frac{78384}{1000000}, \quad \frac{2457}{1000000}, \quad \frac{19}{1000000}$$

3.—Reduce 11 acres, 2 roods, 35 perches, 11 square yards, 5 square feet, 11 square inches to square inches.

4.—Find by Practice the value of 1,842 articles at 6s. 9½d each.

5.—A person completes a journey of 160 miles in 8 days, travelling 11 hours a day, in how many days will he complete 1,000 miles, going 11 hours a day at the same rate?

6.—For what sum should goods, worth £4,384 10s. 3d, be insured at 2s 6d per cent., that the owner may recover, in case of loss, the value of both goods and premium?

7.—A person buys 50 reams of paper, which he thought to sell at £1 2s 6d per ream, making 8 per cent. profit on the prime cost, 5 reams being damaged, what did he gain or lose per cent. by selling the remainder at the same rate?

8.—Allowing 4½ guineas to weigh a lb. Troy, and 32 half-pence to weigh a lb. Avoirdupois, observing that a cwt. Avoirdupois weighs 7,000 grains Troy, what is the difference in grains between the weights of 10 guineas and half-penny?

9.—The sum of four numbers is 2½, and one number is obtained by adding the fraction ⅓ to the first, subtracting ⅓ from the second, multiplying the third by ⅓, and dividing the fourth by ⅓. Find the numbers.

10.—What must be the gross value of an estate, so that, deducting 7d. in the £ income tax, and 4½ per cent. for the expenses of collecting, there may be left a net rental of £1,000?

GEOMETRY.

1.—Define—a plane superficies, a trapezium, a scalene triangle, a polygon, a segment.

2.—The angles at the base of an isosceles triangle are equal to one another; and the equal sides if produced the angles on the other side of the base shall be equal to one another.

3.—To divide a given finite straight line, that is, so that it may be equal parts.

4.—Any two angles of a triangle are together less than two right angles.

5.—To make a triangle of which the sides shall be equal to three given straight lines, but any one whatever of them must be greater than the third.

6.—If a straight line be drawn through A, one of the angular points of a square, cutting one of the opposite sides, and meeting the other produced in F, show that AF is greater than the diagonal of the square.

7.—If a side of any triangle be produced, the exterior angle is equal to the two interior and opposite angles, and the three interior angles of every triangle are together equal to two right angles.

8.—To construct a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.

9.—The complements of the parallelograms which are about the diagonals of any parallelogram, are equal to one another.

10.—Bisect a given triangle by a straight line drawn through a given point in a side.

MENSURATION.

1.—A sphere is 12 in diameter, find the surface of the sphere. The surface will be equal to an area placed at a distance of 12 feet from the center.

2.—The sides of a triangle were 306, 312, and 1,257 links. By how much was the area increased if the side was increased to 1,257 links? The area of the triangle is computed as follows.

3.—The radius of the base of a segment of a sphere is 1 inch, and the height of the segment is $2\frac{1}{2}$ inches. Find the volume of the segment.

4.—Two men, A and B, purchase a grindstone, 30 inches in diameter, for Rs. 12, of which A pays Rs. 7 and B Rs. 5; supposing the innermost 10 inches of the diameter as useless, what part of the radius may A grind down before sending the grindstone to B?

5.—The diameters of the ends of a frustum of a cone are respectively 30 feet and 10 feet, and the height of the frustum is 5 feet, the frustum is divided into two equal parts by a plane parallel to the ends: find the distance of the plane from the smaller end.

6.—A solid is composed of a cone and a hemisphere on opposite sides of the same circular base, the diameter of which is 2 feet, and the vertical angle of the cone is a right angle: the solid is immersed in a cylinder full of water, whose circular section also has a diameter of 2 feet, so that the vertex of the cone rests on the centre of the cylindrical base, while the highest part of the hemisphere just coincides with the surface of the water: find the quantity of water remaining in the cylinder.

7.—The edge of a wedge is 25 inches; the length of the wedge is 22 inches; a section of the wedge made by a plane perpendicular to the edge is an equilateral triangle, each side of which is 10 inches: find the volume.

8.—The chord of half an arc is 12 feet 4 inches, and the diameter of the circle is 12 feet 2 inches: find the chord of the arc.

9.—A pond whose area is 1 acre is frozen over with ice to the uniform thickness of 6 inches: if a cubic foot of ice weighs 57 pounds avoirdupois: find the weight of ice on the pond in tons.

10.—If 30 cubic inches of gunpowder weigh 1 lb.: find the diameter of a hollow sphere which will hold 11 lbs.

WRITING AND DICTATION

The officer conducting the Examination is requested to read out the accompanying passage once, and then dictate it to the Candidates at the rate of about a line a minute, having previously warned them that spelling and punctuation will be judged upon the Dictation exercise. After the Dictation is concluded, Candidates may be allowed 5 minutes to correct their Answers, which should then be submitted.

The printed paper should then be given to the Candidates that they may copy as much as they can of the passage in 10 minutes in their best style, as a separate test of the rapidity and clearness of their writing, at the expiry of which time the papers should be collected whether the passage has been wholly copied or not.

The good philosopher Faraday following piece of admirable advice, full of practical wisdom, the result of a rich experience of life, in a letter to his friend Tyndall:—"Let me be an old man, and ought by this time to have profited by experience, say that when I was younger I found I often misrepresented the intentions of people, and that they did not mean what at the time I supposed they meant, and further, that, as a general rule, the more quick in perception when, on the contrary, they seemed to imply kindly feeling. The real never ultimately appears; opposing parties, if they are treated when replied to forbearingly, are soon overwhelmed. All I can say is, that it is better to be slow to the point of partisanship, and quick to see goodwill. It has happened in one's life in endeavouring to follow the things that make for peace. You can hardly imagine how often I have been wrong in private when opposed, as I have thought unjustly and superlatively, yet I have striven, and succeeded, I hope, in keeping my replies of the like kind. And I think I have never lost by it."

DRAWING.

Note—In working the examples the lines of construction are to be drawn in.

1.—Construct a diagonal scale of 10 feet to 1 inch to read to inches. Mark off, by means of a $\frac{1}{16}$ line, a length of 24 feet 6 inches. $\frac{1}{16}$ representative fraction.

2.—Print the word "Section" in plain block print, $\frac{1}{8}$ inch high; and following $\frac{1}{16}$ in Italic, $\frac{1}{16}$ inch high —

"Variation from $\frac{1}{16}$ North."

3.—Inscribe a pentagon in a circle whose diameter is 1 inch.

4.—Draw an arc of 120° , radii of 1.5 and 2 inches respectively, and a third arc, radius 4 inches, tangent to the two arcs. Mark the point of contact.

5.—Construct the ellipse whose diameters are 1 inch and $\frac{3}{4}$ inch.

6.—Construct a triangle equal in area to a regular heptagon whose side is 1 inch.

HINDUSTANI.

Note.—In writing Hindustani words, the Persian character is to be employed half the marks deducted.

1.—Translate English—

(۱). اُسکے اُس زمارے نے میوے دل میں یہ اور بیٹھائی دیا مگر کہ جس طرح ہر سکے اُسکی باتوں سے یہی حد آتھائے اس تمنا سے حیرت دہش کی طرح اُسکے منہ کی طرف میری شکستہی باندھ گئی اور اُسکے بھی میری سہیلی مرزا سے کرکے ہاتھ سے چھوکر بلایا۔ میری نہایت ادب و تعظیم سے اُسکے پاس گیا۔ اور چونکہ میں عالم و جد میں پہلے ہی سے تھا یہاں تک اُسکے پلاٹوں پر کر پڑا اور دنک ملک کر زار زار روئے لگا اس صابری بیٹھائی پر ۱۱ جو اس ملک سے سکھایا کہ میوے دل میں جو اُسکے دہش کی حالت اور اُسکے حال سے وحشت تھی وہ ایک آس میں صحت و رعبت سے بدل گئی پھر اُسکے صوبی اپنے پائوں پر سے اُٹھاکر دھونڈا کھڑا کیا اور میرا بازو پکڑ کر کہنے لگا کہ بازو سرزاق جو تیری اہلی دولت میں اچھا تھا اور تو مار رہا تھا وہ میں نے سب سلی اب میرا میوے ڈھونڈ لیا۔ اُس مقام سے قریب ایک اور لکڑا لہا اور یہ مقام سب سے زیادہ ملکہ تھا صوبی لکڑا اُس پر کھڑا اور بڑے کے قریب ۱۱ طرف دیکھ کر اور جو کچھ صوبی دیکھ کر بڑے صوبی سے دیکھ کر۔ جس نے دیکھا کہ میں نے سامنے ایک صوبی ہوئی ایک چھوٹا کیا ہے اور اُس میں تیرے دس گروں سے پانی سیل کی صورت میں رہا ہے۔ جس کو کہ میں نے دیکھا جو تو دیکھ رہا ہے وہی دم کی کہانی ہے اور یہ سیل جو اُس میں دیکھ کر آتی ہے یہ اول اور اول کے ہے اُنکے سامنے ۱۱ ایک حصہ ہے ۱۱

(۲). ہمارے ایک مرد دادھار نہایت سوجھا سادا رکھتا تھا اکثر قسمت کے لکڑی دیکھ کر اور لکڑی کھڑا کر کے اہلی رعبت ۱۱ اضافہ کیا کرتا تعریف اُسکے ایک سراج کی کہ یہاں سے ماہر ہے ایک دھند ۱۱ دہر ہے کہ سوئی میں کسی عرصے نے ابھر کر ایک لکڑی چلایا اور وہ لکڑی دادھار کے خانے پر لگا صوبی پکڑا لکڑی کو کہ میں نے دیکھا کہ جالب مائی ابھی یہ تک پہنچ گیا ۱۱ عاید ۱۱ اصل صوبی ۱۱ نام ۱۱ لکڑی اُس سے درخت سے جو چارے دھانیا کہ اُس دھانیا سے کوئی اور دھانیا نہ ہوگی چارے اور اُس صوبی کے لئے قرراً حکم نکال دیا ۱۱

ایک مرتبہ اکثر کوئی میں خانے کے رُستے پر تھا کہ اُنم میری دیکھا کہ کسی راجہ ۱۱ دھڑا اپنے کھل کرلے سے ایسا ہوئی رڑہ دیکھ رہے تھے ساتھ چلے کر طیار ہے کہ جسکے پوچھ سے دنا جاتا ہے دادھار نے اُسکی صوب کے مطابق ایک طہنی سی رڑہ پکڑا اپنے قریب خانے سے سکھائی اور جب اُسکے وہ راجہ اپنے سے لکڑا ایک دوسرے راجہ کی طرف جو اُسوت ہے رڑہ دیکھ کر پھرتے کر زمارے ۱۱ ادا کیا وہ راجہ اُس کوئے کے باپ سے کچھ دھنکی دیکھا تھا اُسراستہ کوئے کو بہت لکڑی کھڑا لکڑی ہی ہوئی رڑہ دیکھ کر اُس کوئے لکڑی کر دیکھ گیا اور کہا کہ میں کوئی میں نے

زیر نکتہ کے چاروں گوشوں پر ایک ایک سے چھوڑ کر کے صرف آٹھ ہی فرما یا
 کہ غیر آج ہم یہی زیر نکتہ نہیں پہنچ سکے کہ یہاں سے کہیں سے ہمارے ساتھ
 یہ زیر نکتہ چلتی اور ہم زیر نکتہ پہنچیں *

2.—Decline **اندر** singular and plural the **اندر** (a camel).

3.—Translate **اندر** following **اندر** —

(a). Shall we come again in **اندر** morning?

(b). **اندر** **اندر** **اندر** be made flat like those we have just **اندر** making?

(c). Cut down this edge to a depth of 5 inches.

(d). I hope I **اندر** see this **اندر** right **اندر** morning.

(e). Well, **اندر** the morning **اندر** bring **اندر** and you.

4.—Conjugate **اندر** (to make) in the three principal tenses, **اندر** give present **اندر** past participles of **اندر** (to be made).

5.—Write out in Urdu words and figures—5, 17, 325, 5774 and $\frac{1}{2}$.

6.—Translate into Hindustani—

اندر **اندر** is seldom or never at rest. Every boy who **اندر** a kite knows that even when it seems quite **اندر** at the surface of **اندر** ground **اندر** is generally a light breeze above **اندر** tops of the **اندر** houses. On **اندر** plains of the interior of **اندر** there **اندر** always **اندر** or **اندر** wind in the day-time, though it is usually very light **اندر** the months of November **اندر** December, but at night, except in the rainy **اندر** **اندر** generally calm **اندر** **اندر** level of the roofs of high houses

ENTRANCE EXAMINATION PAPERS,

SUPERIOR LITERATURE BRANCH AND TRAFFIC DEPARTMENT.

ENGLISH LITERATURE.

1.—Compare the styles of Addison and Macaulay. What do you know of his life and former? What are his chief works?

2.—Who wrote the Idylls of the King? How many are there? Give a short account of the story of any one of them.

3.—From what works are the following quotations taken? Give the text where you can —

- (1). "Fare thee well! — if for ever
"Still for ever, fare thee well."
- (2). "Butchered — a Roman holiday."
- (3). "Unfaith is sought is want of faith in all"
- (4). "Who steals my purse steals trash"
- (5). "They also who only stand and —"
- (6). "She sat — patience on a monument."
- (7). "A gentle Knight was pricking o'er the plain"

4.—What was the result of the Restoration in the poetry of the time? Illustrate your answer by quotations where possible.

5.—Who were the authors of—

- (1). Phoenix and the Turtle
- (2). Light of Asia.
- (3). The Spanish Student.
- (4). The Crown and Wild Olive
- (5). The African Farm.
- (6). Utopia.
- (7). The Spectator.

(9). In Memoriam.

(16). The _____ of _____ Women.

Describe shortly the contents of any _____ of _____ 2, 4, 5, 6 —

6.—In what books do the following persons occur? Discuss the character of any one of the 1st and last 5.—

Pip

Capt Dobbin.

Andrew Fairweather

Cedric

Sancho Panza.

Jeanie Deane

Nydia.

Amy Robart

7.—What do you know of Walt Whitman? What are the peculiar characteristics of his works?

1.—Translate into English—

Pierre Grand était bon ingénieur lui-même, sur-tout il excellait dans tous les arts de la marine bon capitaine, vaissseau, habile pilote, bon matelot, adroit charpentier, et d'autant plus estimable dans ces arts, qu'il était né avec une crainte extrême de l'eau. Il ne pouvait dans sa jeunesse passer sur un pont sans trembler, il se faisait former alors les volets de bois de son carrosse, le courage et le genre d'empêchement lui cette machine. Il fit construire un port exprès d'Atropé, à l'embouchure de l'Indus : il voulut y entreprendre des galères, et dans la suite, croyant que ses vaisseaux, longs, plats et légers, devaient courir dans la mer Baltique, il en a fait construire plus de trois dans sa ville favorite de Pétersbourg : il a montré à ses sujets l'art de les bâtir avec du simple sapin, de les conduire jusqu'à la chirurgie on l'a vu dans sa fonction à un hydropneque ; il s'occupait dans ses moments, à instruire

Il était à la vérité peu de chose, son rapport à l'État il n'était que vingt-quatre millions de revenu, mais à près de cinquante livres, nous faisons

aujourd'hui, nous ne pouvons peut-être pas demain : nous ne pouvons pas faire grandes choses. C'est pas la rareté de l'argent, mais celle des hommes et des choses qui rend l'empire faible.

2.—Translate French—

Charles XII was born in 1682 and was taught art of war by his father. Towards the end of April, he found that his whole Army, who had survived through the coldest winter in the Ukraine, was but eighteen thousand men, and his sole ally who remained true to him was Mazepa, who had brought a body of Cossacks, which raised the force of the king to thirty thousand men. Towards the end of May he passed the Dniéper, and determined to attack Pultowa, a considerable town on the river Verska. Prince Menshikoff, who commanded the Russian army opposed to Charles, threw reinforcements into the town, and the garrison made sorties, sprang mines, and defended themselves according to rule, but on the 27th of June, the Czar himself advanced to its relief with an army of 70,000 combatants. The King attacked one of their detachments, and when returning to his camp, received so severe a wound in his heel, that it was thought he would lose his leg, but a bold surgeon assured he could save it by making incisions. With characteristic endurance, he ordered his doctor to proceed to his task, and holding his own leg said, "Out away, my boy, boldly, don't be afraid." Unable from his wound to command his army, he ordered Menshikoff to attack the Czar on the 1st of July. The Czar had crossed the river a league from Pultowa, and formed his army in three redoubts mounted with cannon.

8.—Correct and put into grammatical French—

Enfin l'orient se colore, et le tempête semble s'apaiser sur les premières vagues de l'amour. Le jour se lève à l'est, les rochers roussissent d'Altdorf, que le tyran ne le temps de reconnaître, il dirige la barque et la faire marcher plus rapide. Quelque chose revient à la mesure que le danger s'éloigne, observe lui-même les yeux sombres. Il voulait, mais il n'ose pas se charger de lieux. Les matelots et ses matelots, qui, s'avançant vers le colère, lui d'une voix terrible, la barque, qu'il a gardé la reprise le chemin d'Altdorf.

1 - French -

RE: I [redacted] Psychol.

He **_____** away.

lighten.

I was born.

5.—Give the feminine form of the following words.—

(a) Sec. Fraus. Mon. Malin. Gress. Complet. Favoc.

(b) Pêcheur, loup, héros, époux, empereur, serviteur.

6.—Translate the following phrases.—

Le [] oeuvre.

On n'a rien vu venir.

L'argent est la mère de tous les vices.

Il faut battre le fer quand il est chaud.

Faire d'une pierre deux coups

Il faut tard que j'en parle.

7.— Give ~~the~~ adverbs of the following adjectives.—

Constant, prudent, patient, profound, common, unpari, enormous,
exquisite.

GERMAN.

[A B -- At least one answer should be written in () character].

1.—Translate into English—

Erwämt und gestärkt begaben wir uns nach gegen 11 wieder in die Freie, um den Tagesschein und den Aufgang der Sonne zu erwarten. Dieser nicht lange, so zeigte sich am östlichen Horizonte ein rosenfarbiger Schein, der allmählich glänzender wurde und sich nach und nach das ganze Himmelskreuz und die umliegenden Berge verbreitete, aus der entweichenden Dunkelheit hervortrat. Die Sonne, zerschaute die Berge, die umliegenden Landschaften, die schönsten mannigfaltigsten Farben prangten.

Nachdem wir uns zu diesem Anblick ergötzt hatten, wir Anstalt, den Krater in Augenschein zu nehmen. Wir mussten eine Zeit lang warten und

klettern, bevor der oberste grosse Anfaß des Aetna erreicht wurde, 1,100 hoher Kegel, aus Spalten ist, Schwefeldampf hervorbringt. Der Weg hinauf ist beschwerlich, denn ist steil, und Füße Decke. gross war Erstaunen, als wir Gipfel anlangten und den fürchterlichen erblickten, von welchem ungeheure Rauchsäulen emporstiegen und ein Getöse, wie Donner, Kanonenschuss, herauf

2.—Translate into German—

The little theatre proves a agreeable diversion. engaged a box for the season, and am glad whenever many hospitable houses have an evening free. Without attempting much, the modest German company, most respectable performance, gave us selections Kotzebue, Iffland, but pieces, recently dramatised, Griselda, is more attractive than all, and draws sympathising audiences. This is taken from the same old German legend, which, I conclude, our ancient of the peasant Griselda, with a slight alteration of the denouement (Entwicklung) drama, however, is laid in of national character King Arthur. The hero, Percival, is one of the chief nobles of his court, and heroine, Griselda, has an account of her beauty and virtue, from a lowly woodman's hut to grace castle. Knowing his very mirror of excellence, Percival leaves her repair King Arthur's court, where, taunted by some with her low birth, by others, with a diamond which is afraid display, he boasts that, though his wife a woodman's daughter, surprises in obedience, every wisely of duty, all the high-born court stings Queen herself,—a bad, designing woman,—that homage the peasant-born countess, and proclaim her obedience prove superior to every trial, but, fail, the same homage from haughty Percival herself. This Percival's vanity, confident wife's principles, careless of her sufferings, he accepts

3.—Give words—in the Nominative Genitive singular,

plural with the article—of eight
following:—

Battle, fool, sword, mountain, war, lady, gentleman, bridegroom,
widow, poet, book, poem.

4.—Distinguish between—

Gebotet, gebeten, geboten.

Ahre, Khre,

furchtbar, furchtlos

graulich, grenlos

verständlich, verstandlich

nicht lange gerechnet, lange nicht gerechnet.

5.—Give German words for—

$\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $1\frac{1}{2}$, $3 \times 6 = 36$, on the first of March 1893.

6.—Conjugate the following verbs —

Issen, Verstehen and in the Present, Past Future
tenses, both singular and plural, also giving their meanings.

7.—Compare (with meanings) —

Stark, gut, nahe, kurz, edel, hoch, gross, viel, gern.

QUESTIONS

1.—To what countries do the following belong— Heligoland, Bornholm,
Texel, Ushant, Crete, Cyprus, Corfu, Majorca, Rhodes, Corce, Formosa?

2.—Give an outline map from Riga to Ushant, showing the junctions
of the countries, the principal rivers, the mouths of the rivers, and
large towns.

3.—Describe the position of Alsace and Lorraine, giving the
bordering them, the mountains, and chief towns.

4.—A railway may be constructed joining Saes and Agra direct,
head of Persian gulf. Describe its route, and its approximate length.

5.—Trace the course of the Ganges from its source to its mouth,
giving positions of its affluents, and any points of interest to
you.

6.—Between what degrees of latitude does the great Himalayan
range divide?

7.—Give the names of the Russian Empire and Asia.

ENTRANCE EXAMINATION, SURNAME

8.—Give, in order, the names of the great rivers of the Punjab, and specify their discharges.

9.—Describe the great plain of Hindustan, giving approximately its area, population, physical features, and products, and its position relative to Bengal.

10.—State what you know of the monsoons, and specify their effects as regards the table-land of the Deccan.

11.—Where are the following?—The Sunderbunds, Neilgherry hills, Nerbudda, Goa, Pondicherry, Andaman isles, Thayetmyo, Cutch, Chittagong, Godavery, Perak, Tonkin, Baghdad?

—Define the following terms:—Watershed, affluent, delta, peninsula, plateau, confluence, lagoon, dave, meridian, isthmus, straits, reef, gulf, estuary, igneous rock, cyclone.

ENGLISH ESSAY,	} Same Examination papers as for Entrance Class Entrance.
LATIN,	...	...	...
PERSIAN,	...	...	...
ARABIC AND INDIAN HISTORY,	...	...	...
ARITHMETIC,	...	...	...
ALGEBRA,	...	...	...
GEOMETRY,	...	...	...
TRIGONOMETRY,	}
MENSURATION,	...	...	...

MONTHLY EXAMINATION PAPERS,

ENGINEER CLASS.

MECHANICS AND CONIC SECTIONS

MECHANICS, PART I.—JUNE

(First Year)

1.—A train, of mass 100 tons, is ascending uniformly an incline of 1 in 20, and the resistance due to friction, &c., is equal to 16 lbs per ton, if the engine be of 200 H.-P., and be working at full power, find the velocity at which the train is going.

2.—A bullet moving at the rate of 200 feet per second is fired into a trunk of wood, into which it penetrates 8 inches; if a bullet moving with a similar velocity is fired into a similar piece of wood 8 inches thick, with what velocity would it penetrate a piece of wood 16 inches thick?

3.—A mass P after falling freely through a distance h feet begins to raise a mass Q , greater than itself, being connected with it by means of a string passing over a smooth pulley. Find the resulting motion.

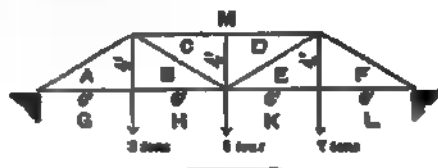
4.—A piece of uniform wire is bent into three sides of a square $ABCD$, in which AD is wanting. Show that it be hung, in a vertical plane, by the two points A and B successively, the angle between the two positions of BC is $\tan^{-1} 18$.

5.—If a string AB be 10 inches long, O and D two points in it such that $AO = 6$, $OD = 4$, and the extremities A and B are fixed to two points in the same horizontal line at a distance of 14 inches from one another, find the positions of the two weights, which hung at C and D , will keep the string in equilibrium?

EXAMINATION,

6.—A beam of length $2a$ against a plane and at a distance b from the plane; show the vertical $= \sin^{-1} \sqrt{\frac{b}{a}}$

7.—Find the stress in all the bars of the bridge in the diagram, showing also the nature of the stresses.
Draw the stress-diagram to a scale of 4 tons to the inch.



MECHANICS, PART II.—August.

(First Year).

1.—A particle moves in a straight line under the action of a force at a point in the line and proportional to the distance of the particle from that point. Find the work done while moving from one position to another.

2.—A tower is to be built of brickwork, and the base is a rectangle 100 feet by 10 feet, and the height is 100 feet, the walls being 2 feet thick. Find the number of units of work expended in raising the bricks from the ground, and the number of hours in which an engine of 10 horse-power would raise them, a cubic foot of brickwork weighing 112 lbs.

3.—A train is going up an incline of 1 in 70, at the rate of 10 miles per hour, the friction being equivalent to a force of 8 lbs. weight per ton of the train's weight. The incline is 500 feet in length, when the train is half way up, a coupling breaks. Find (a) how far the train will go up the incline, and (b) the speed at the end of the incline.

4.—A mass m slides down a smooth inclined plane of height h and length l , and draws another mass by means of a string along a smooth horizontal table which is level with the top of the inclined plane over which the string passes. In 5 seconds from the start through 2 feet find the mass on the table.

5.—A ladder, 10 feet long, rests against a vertical wall, and it is

inclined at an angle of 45° the co-efficients of friction of the wall and of the plane being respectively $\frac{1}{2}$ and $\frac{1}{3}$, the centre of gravity of the ladder being in the middle point. A man, whose weight equals half the weight of the ladder, ascends it, to what height will he begin to slide.

6.—A particle, after sliding from rest for $\frac{1}{\sqrt{2}}$ down a smooth plane inclined to the horizon, strikes a horizontal plane (co-efficient of restitution $\frac{1}{2}$) and rebounds. At what distance will it again strike the plane?

7.—In a conical pendulum a mass of m lbs is suspended from a string of length l feet, and makes n revolution in t seconds. Find the inclination of the string to the vertical, and the tension of the string.

Find the inclination when the length of string is 4 feet 1 inch at a place where $g = 32.0166$, and the bob makes n revolutions in t seconds ($n = \frac{2\pi}{t}$).

8.—A seconds pendulum is lengthened 1 per cent. How many days will it lose per day?

SYMMETRICAL SECTIONS.—NOVEMBER.

(First Year).

1.—In a parabola, if the tangent at any point P intersect the tangent at the vertex in Y, then SY will bisect PY at right angles, and SY is a mean proportional between SA and SP.

2.—In a parabola let MN be the perpendicular from M on the normal at P, let N be the foot of the ordinate, show that $SE^2 = AN \cdot SP$.

3.—If BC be the semi-minor of an ellipse, then $BC^2 = CA^2 - CS^2$, and if SL be the semi-latus rectum, then $SL \cdot AC = BC^2$.

4.—PSP' is any focal chord of an ellipse, of which A is one extremity of the major axis, produce PA and P'A to meet the directrix in Q and Q'; prove that the angle QSQ' is a right angle.

5.—Find the locus of a point which moves so that the sum of its distances from a given point is equal to its distance from a given straight line.

6.—Show how to construct an ellipse from a right triangle determining the position of both foci and of the directrices.

HYDRO-MECHANICS.—JANUARY.

(First Year).

1.—A cube of lead, the side of which is 4 inches, is to be supported in water by being suspended from the smallest possible sphere of cork. If the side of the sphere of cork is 1 inch, the specific gravity of cork being 0.24, and that of lead 11.35.

2.—Describe the principle of the lifting pump, and of the air pump.

3.—A cube displaces $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ of its volume respectively when floating in water, alcohol and oil. Find the volume it will displace when floating in a mixture made up of equal weights of the same three fluids, assuming no loss by absorption action.

4.—A rectangular surface 6' x 12' is immersed vertically in water, with its top level with the surface of the water. Length of vertical side 12 feet.

(i). Divide it, by means of horizontal lines, into 8 rectangles sustaining equal pressures.

(ii). Find the total pressure on one side of one of the rectangles.

(iii). Find the centre of pressure of each of the rectangles.

5.—A pipe laid as a service reservoir A is required to give a discharge of 1,125 gallons per minute at a point C.

Levels, A, 85.9

" B, 42.4

" C, 31.9

Length, A to B, 4,500 feet.

" B to C, 2,200 "

(i). What diameter should be given to the pipe?

(ii). What will be the pressure in the pipe at B, when the pipe is discharging freely at C, and when it is stopped by a plug?

PURE MATHEMATICS.

GEOMETRY.—MAY

(Second Year).

1.—Show that the three lines $5x + 2y - 7 = 0$, $8x - 4y - 10 = 0$, and $x + 2y = 1$ meet in a point, and find in what ratio the line joining the points (1, 2) and (5, 6) is cut by the line joining (2, 5) and (4, 1).

2.—Find the equations of the straight lines which pass through a given point, make a given angle with a given straight line, and apply the result to the case in which (5, -8) is the given point, $2x + 4y - 6 = 0$ the given straight line, and 30° the given angle.

3.—Find the equation of the circle which touches the lines $x = 0$, $x = a$, and $3x + 4y + 5a = 0$.

4.—Find the equations to the tangent and the normal at any point of a parabola, and deduce their expressions in terms of the tangent of the angle which they each make with the axis of the parabola.

5.—At the point (x', y') of a parabola a normal is drawn; find the co-ordinates of the point where the normal meets the axis, and the length of the intercepted chord.

6.—Given the co-ordinates of one extremity of a diameter of an ellipse, find those of either extremity of the conjugate diameter, and show that the sum of the squares of two conjugate semi-diameters is constant.

7.—P is a point on an ellipse, y its ordinate; show that the tangent of the angle between the focal distance and the tangent at P is $\frac{y}{ay}$.

DIFFERENTIAL CALCULUS—JULY.

(Second Year).

1.—Find from the principles the coefficient of $\sqrt{x^2 - a^2}$, and point out its geometrical application.

2.—Differentiate the following—

$$y = \tan^{-1} \frac{\sqrt{x^2 - a^2}}{1 + a^2}, \quad y = \log \frac{x}{a^2}$$

$$y = a \log \frac{x}{a + bx}, \quad y = \sqrt{\left\{ \frac{1 - x^2}{(1 + x^2)^2} \right\}}.$$

3.—If

$$u = \frac{1}{2} \log \frac{(y+1)^2}{y^2 - y + 1} - \frac{1}{\sqrt{3}} \tan^{-1} \frac{2y-1}{\sqrt{3}},$$

where $y = \frac{\sqrt{1+2x+x^2}}{x}$, show that $\frac{du}{dx} = \frac{1}{xy(1+x)}$.

4.—Find the terms of the expansion of $\log(1+x)$ which vanish.

2.—Find the position of the plane down which the earth behind a retaining wall must be in order to produce the maximum horizontal earth thrust.

3.—A masonry canal is an earthen water-channel of maximum discharge for a given hydraulic mean depth is equal to half the depth of the canal. Take the side slopes to be given as n .

7.—Show that the radius of curvature of the curve $y^2 = \frac{ax(x-2a)}{x-a}$ at one of the points where $y = 0$ is $\frac{8a}{3}$, and at the other $\frac{2a}{3}$.

8.—In tracing a curve how would you recognise the following features:—

- Symmetry, with regard to either an axis or a point.
- Where the curve crosses the axes.
- Asymptotes.
- Whether the curve passes through the origin.
- The direction of tangents at the origin,

and what would be indicated by $\frac{dy}{dx}$ either vanishing or becoming infinite?

EXERCISES IN CALCULUS.—Answer.

(Second Year).

1.—Explain the application of the Integral Calculus to the following problems:—

- Finding the position of the centre of pressure of a uniformly varying pressure acting over a given area.
- Finding the moment of inertia of a lamina of rectangular shape about an axis parallel to one of its sides.
- Finding the hydraulic discharge of a rectangular channel of given dimensions.

2.—Integrate the following:—

$$\int e^x \sin ax \, dx, \quad \int \sqrt{2ax - x^2} \, dx, \quad \int_0^{\frac{\pi}{2}} \sin^4 \theta \cos^2 \theta \, d\theta, \\ \int_0^{2\pi} x^2 \sqrt{2ax - x^2} \, dx, \quad \int \frac{(2x+5) \, dx}{x^2 + x^2 - 2x}$$

3.—Find the equation to the cycloid referred to the vertex as origin being

$$\left. \begin{aligned} y &= a(\theta + \sin \theta) \\ x &= a(1 - \cos \theta) \end{aligned} \right\}$$

Find the length of the semi-cycloid is twice the circumference of the circle.

4.—A circle of which the diameter is 12 inches long is divided into two segments by a chord CD cutting the circle at angles in E, 30° and 60° inches from A. Find the volume generated by the revolution of the larger segment about AE.

5.—Find the center of gravity of the above segment of the sphere.

6.—Find the area of the curve

$$y^2 + z^2 = a^2 \sin^2 x.$$

APPLIED MECHANICS.

TRANSVERSE STRAIN.—May.

(Second Year).

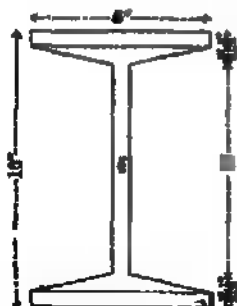
1.—The section of a beam under transverse strain is two equal opposed isosceles triangles with vertices at the neutral axis, bases horizontal, breadth = 8 inches, depth 12 inches. Find the following quantities and express in proper units, the intensity of stress being 1,750 lbs. per sq. inch:—

- (i). Stress intensity 1 inch from neutral axis.
- (ii). Total longitudinal stress.
- (iii). Distance of centres of stress from neutral axis.
- (iv). Effective depth.
- (v). Moment of Resistance.

2.—A rolled steel beam of the section shown below is of 25 ft. span.

Find the uniform dead load which it will bear permanently

$$s = 5 \frac{1}{2} \text{ tons per square inch}$$



3.—A Warren girder of 25 ft. span, having in the lower flange 5 bays of 5 feet each, and in the upper 5 bays of the same length each, is 7 feet 6 inches deep, and thus forms a series of right-angled triangles. It is supported at the ends of the lower flange and carries a dead load of 1 ton per foot run distributed equally along the booms, and a live load of 2 tons per foot run along the

only. Find the stresses in the booms and in the sloping member in the bay on the right of the centre of the girder. Also find the change of shear during the passage of the live load.

4.—Explain the method of design of the purlins of a roof.

5.—In what ways may a joint made as a pin connection fail? Design the joint referred to in Question 3, given—

Safe shearing stress,	..	7 tons per sq. in.
bearing "	=	$6\frac{1}{2}$ "
tensile "	=	7 "

6.—Two bars of wrought-iron, each $\frac{1}{2}$ inches wide by $\frac{1}{4}$ inch thick, are lap-jointed by a single rivet $\frac{1}{2}$ inch in diameter. If the stress in the bars is $1\frac{1}{2}$ inches from the end of each bar, find the stress necessary in the joint to fail in any way.

STABILITY OF STRUCTURES.—JULY

(Second Year)

1.—In a blockwork retaining wall 2 feet thick a joint AB has a pressure of 8 tons making an angle of 15° with the normal to the joint. Find the maximum and minimum pressures exerted on the joint according as the centre of pressure acts at 4° , 6° , 12° , 16° and 18° respectively from the heel edge, considering (1), that the joint is cemented, (2) uncemented. Consider the 8 tons to be acting on a 1 foot length of the structure.

2.—Under what circumstances would the above joint be liable against sliding?

3.—Examine into the stability of the retaining wall of which the diagram is given to you. The wall which the wall is to be filled to a depth of 12 feet, and is also liable to be completely emptied. Find the maximum pressure which the brickwork can sustain when the tank is full and when empty, also the pressure on the earth below the wall. The ground outside the wall is level.

Diagram at a scale of 4,000 lbs. to 1 inch.

4.—Draw the line of pressure of the half of the arch ring given, when the load per foot run of width of bridge is as shown, and find the direction of the pressure at the crown.

the arch ring into 8 voussoirs of 1 foot each from the left abutment, and point out whether there is any danger of sliding at any joint. Weight of masonry = as question 3. Line of action within the centre half of arch ring.

(First Year).

1.—Define the following terms as used in the subject:—Modulus of tenacity, Modulus of elasticity, Pillar, Stress-solid, Stress-diagram, Dead Load.

2.—Show clearly how a pillar is weakened by being unevenly loaded, and state in what cases it is dangerous?

3.—In what respects are Gordon's formulae for the strength of pillars preferable to those of Hodgkinson and Rendelet, and in what cases of pillars do they apply?

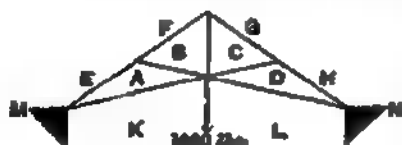
4.—Find the working load on a square timber pillar 10 feet long $6" \times 6"$ scantling if need—

(i). As a verandah post, with ends fixed.

(ii) As a pile imbedded 7 feet in firm wet soil which supports it all round, as the sunken portion is not free to bend.

Crushing stress, 1,000 lbs. per square inch.

5.—A symmetrical King-post Truss of 32 feet span, the rafters



bisected by the struts, and the truss is braced so as to lie in one line with the tie rod as shown in diagram. The trusses are 6 feet apart, inclining at an angle of $\tan^{-1} \frac{3}{4}$.

vertical load of roofing is 15 lbs. per square foot, there is a horizontal load of 1,000 lbs. hanging from the tie-rod joint. A wind pressure of 35 lbs. per square foot blows from the right.

Find the resulting stresses in the members by a single diagram according to Bow's method, which resultant stress in each joint is laid off along the line, and the stress in each bar.

Scale for frame-diagram, ... 8 feet to 1 inch.

" " stream- " ... 4,000 lbs. to 1 inch.

6.—Design a right rafter of T-iron, the tie-rod bar-iron, for $f_t =$ lbs. $f_c = 36,000$ lbs., of safety 5.

—————

STRAIN.—Pneumatics.

(First Year).

1.—What is meant by the "Co-efficient of Rupture"? Distinguish between "Co-efficient of Rupture" and "Modulus of Rupture."

2.—A girder has clear span and 5 uniform effective depth, carry a uniform steady load of $\frac{1}{2}$ ton per foot run and a uniform travelling load of $\frac{1}{2}$ per foot run. The girder is of wrought-iron with parallel flanges of 12 inches breadth, and with a cross section of equal strength. Calculate the flange areas every foot.

3.—The flanges of a rolled iron beam are each 8 inches wide $\frac{1}{2}$ inch deep. Its whole depth is inches. Determine the length on the that a dead load of $\frac{1}{2}$ ton on each lineal foot is to produce a maximum working stress of per square inch whether in compression.

4.—In designing a to resist strains, strength do you derive from the method of sections? conditions are in the case of the beam in Question 3.

5.—A girder long carries a uniform steady of $\frac{1}{2}$ lineal and is traversed by a uniform travelling load in length diagrams showing shearing and bending moments when the load has reached such a position that its ends are distant feet and 30 feet from the ends of the girder.

Scales, 10 = 1 inch.

" = 1 "

" 300 foot-tons = 1 "

Explain fully the steps taken in the construction of the diagrams.

CIVIL ENGINEERING.

MATERIALS AND EARTHWORK.—MAY.

(First Year).

- 1.—Name the classes, according to their origin, and give a short description of their formation.
- 2.—What are the characteristics of granite, sandstone, marble, limestone? State, in each case, the qualities of the stone, and the purposes for which it is best suited.
- 3.—What constitutes a good earth? Give a summary account of the process of brick-making. What are the distinguishing qualities of the different classes of bricks?
- 4.—Detail the classes under which lime is classified.
- 5.—Describe the process of making mortar as practised in Bourkes, and how is it usually used in this neighbourhood?
- 6.—Account for the hardening and setting of mortar.
- 7.—What are the usual ingredients of concrete, and how are they mixed?
- 8.—What are the principal woods in use in the North-Western Provinces for building purposes, and give a general description of each?
- 9.—State briefly the arrangements you would make of excavating a cutting, in ordinary clay 10 feet deep and bottom 10 feet, and an average lead of 500 yards, the material being used to form an embankment in continuation of the line of cutting and formation level.
- 10.—What kind of material makes the best puddle? Describe generally the process of puddling an embankment.

AND BRIDGES.—MAY.

(Second Year).

- 1.—Enumerate the principal kinds of roofing used in India, and describe to the best of your knowledge the modes of constructing and of finishing off the ridges and hips of each kind.

3.—Compare clearly the different joints of a wrought-iron King-post truss in which the ties are of rod and the struts of T-section.

2.—Compare stone, cast-iron and wrought-iron as materials for the construction of fire-proof buildings.

4.—Describe as concisely as possible the conditions which would govern the design of a bridge.

(a). The design of a bridge.

(b). The description of bridge, whether masonry or iron.

(c). The design of the foundations.

5.—It is the design of the small bridges of a railway which governs the speed of trains passing over them rather than the design of the larger bridges. Explain this.

6.—Describe the four principal methods of erecting girders, stating briefly how to determine which method shall be adopted. Describe also the operation of raising the piers on which a girder rests, showing how it would be an advantage to move the girder in the process.

7.—Describe the design of the foundations of flood gates in long railway embankments, explaining the necessity for them and giving reasons as to whether it is better to have many small or a few large ones only.

8.—Explain the modern system of training works for large bridges over rivers with wide sandy beds, showing clearly the effect of the "training works".

9.—Describe any three of the following operations:—

(i). The exact measurement of a span which has been bridged.

(ii). The erection of a temporary spar bridge to span 100 feet high.

(iii). The design of a derrick to lift a span up to 15 tons.

(iv). The sinking of a pier through an ordinary ground.

(First Year).

1.—Sketch neatly the design of a joint for joining two

resist compression, tension, and cross-strain respectively, showing how each form is suited to resist the strain.

2.—Distinguish between a joint and a fastening, between a mortise joint and a fished joint, between carpentry joinery, and between a dog-legged stair and a geometrical stair.

3.—It is necessary to show the construction of a double-jointed fireplace, 19' x 16' in size, one of the shorter walls. Scale, 6 feet = 1 inch.

4.—Describe the stress in a beam, explaining the nature of the stress in the various parts.

5.—Sketch the joint between the bottom rail and the wooden part of a door, showing the iron strap as used. What is the weight of the door 18,240 lbs., and the strain on the strap you have shown. Explain the reason for the oblique tension in the above joint.

6.—What are the points to be attended to in a good centre? What is often the result of a badly constructed centre, and state how these are produced?

7.—Name the different parts of a single-leaf panelled door. What are the points to pay attention to in order that the door may not warp and lose its shape?

8.—Explain the construction of a timber partition dividing the upper part of a house has to be a real frame, suited to carry such a partition for a room 17 feet wide, with the ceiling of the room above 15 feet above this floor, with two windows 3 feet 6 inches and 3 feet 9 inches high, the centre lines of which are at 2 feet 6 inches from the side walls, and draw a skeleton diagram of the frame of wood (whether in compression) of the partition forming the frame.

RAILWAYS.—JUNE.

(Second Year).

1.—What do you consider to be the maximum gradient of a cart road respectively? Give the dimensions of the Imperial Gauge in Upper India.

2.—What is the coefficient of traction on a good road, and what is the gradient of it?

- 3.—Name the tools of the surveyor for installing.
- 4.—What drawings should accompany a report on a proposed road?
- 5.—State briefly the considerations which govern the general direction of a line of railway, and the objects of making a reconnaissance survey?
- 6.—Explain how you would make use of the aneroid barometer for the purpose of obtaining an approximate elevation along a given line of country.
- 7.—Explain the method of determining the gradients of any particular line?
- 8.—What are the objects of setting the mass of the rail and of the super-elevation of the mass rail on a curve?
- 9.—Describe and sketch four forms of permanent way used in the country.
- 10.—State briefly how you arrive at the estimated cost per mile of a railway, and the necessary surveys for which it is complete.

MASONRY.—JUN.

(First Year).

- 1.—Define the following terms used in masonry —facing, backing, filling, batter, course, bond, and back racking.
- 2.—Write down the chief points to be attended to in a Brickwork Specification.
- 3.—Make a sketch showing the joints in a wall of three courses thick.
- 4.—Describe the methods of providing a foundation in masonry.
- 5.—Give a brief account of the construction of the Roman Aqueduct, and sketch it.
- 6.—Describe the working of a Ball's Dredger employed in excavating foundations.
- 7.—What advantages are gained by using hollow bricks in retaining walls?

IRONWORK.—JULY.

(First Year).

- 1.—Enumerate the ores of iron, and state their chemical composition.
- 2.—Write a short account of the process of iron-making on the Bessemer process.
- 3.—Sketch and describe the furnace in which the calcination of an ore is conducted.
- 4.—Describe the process of refining pig-iron.
- 5.—What is the process of iron-founding in green sand? Describe the blow.
- 6.—How is steel produced by the Bessemer process? What do you understand by temper?

HYDRAULIC WORKS.—JULY.

(Second Year).

- 1.—Describe briefly the main differences between Perennial, and Navigation Canals.
- 2.—Describe the methods employed in the survey of a project for—
 - (i) A Canal in an uncultivated tract.
 - (ii) A Distributary in a richly cultivated tract.
- 3.—Give the meanings of the following —
Colaba, duty of water, module, regulator, rapid, ditch, aqueduct, superpassage, taitil, kiln.
4.—Sketch a cross section of a Canal at a Weir, showing the advantages of a water-tight dam up-stream with sandy foundations, and the injury to the dam by sand blowing, springs, &c.
- 5.—Explain the position of the water level in soils of different formation. Why does it rise to a high level in a canal compared to the rivers on either side? What is the Mota?
- 6.—Sketch a syphon to carry about 50 cubic feet per second under a canal of 10 feet width on outside toe of embankments, the canal bed being on the level of the natural soil.
- 7.—Describe one good style of spar or groyne showing the what class of river it is most suitable for.
- 8.—Name the four main operations connected with a canal project.

ARTS

(First Year).

August.—Building

November.—Bridge.

December.—Earthwork.

December.—Ironwork.

GROUND TRACING.—October

(Second Year).

To trace out on the ground the foundation trenches of a building.

PROJECT.

(Second Year).

_____ will submit Plans, Section, Estimate, Specification and Report for _____ improvement of the Roorkee-Hardwar road as far as _____ bridge of _____ Ganges Canal.

The improvement _____ consist in raising where necessary, bridging _____ metalting the existing road. At the _____ the Ratman _____ river, _____ approach to the Bahadurabad bridge, _____ existing road should be diverted so as to cross at right angles _____ the general _____ of the _____ and of _____ canal. At Bahadurabad _____ road should _____ village and Bongla.

_____ designs already submitted for _____ bridge _____ Golani _____ will _____ accepted as they _____ portion _____ work. The bridge over the Ratman river should _____ of girders on well _____ bridge over the _____ may be of a similar design, _____ of spans being specified. The _____ drainages should be provided for by culverts _____ design.

_____ be _____ to prevent flooding of _____

The road will be _____ with _____ inches, _____ kaakar 3 inches, full width _____ feet, top width of embankment 30 feet.

STANDARD CLASS.

Bridges and ~~approach~~ ~~to~~ ~~the~~ ~~canal~~ between curbs.

Notes—Local Public Works Department ~~will~~

~~The~~ ~~survey~~ ~~will~~ ~~be~~ ~~an~~ ~~independent~~ ~~survey~~ ~~for~~ ~~the~~ ~~Project.~~ ~~The~~ ~~survey~~ ~~will~~ ~~be~~ ~~starting~~ ~~from~~ ~~the~~ ~~19th~~ ~~milestone~~ ~~on~~ ~~the~~ ~~canal~~ ~~along~~ ~~the~~ ~~existing~~ ~~at~~ ~~Bahadurabad,~~ ~~the~~ ~~starting~~ ~~point~~ ~~along~~ ~~the~~ ~~Ganges~~ ~~Canal.~~ ~~The~~ ~~approach~~ ~~to~~ ~~the~~ ~~Damodar~~ ~~bridge~~ ~~will~~ ~~be~~ ~~by~~ ~~plane-~~ ~~table,~~ ~~the~~ ~~rest~~ ~~of~~ ~~the~~ ~~detail~~ ~~required~~ ~~along~~ ~~the~~ ~~road~~ ~~being~~ ~~chain~~ ~~and~~ ~~compass~~ ~~survey.~~

The survey on ~~each~~ ~~side~~ ~~of~~ ~~the~~ ~~line~~ ~~should~~ ~~be~~ ~~1,000~~ ~~feet~~ ~~on~~ ~~each~~ ~~side~~ ~~in~~ ~~ordinary~~ ~~ground,~~ ~~and~~ ~~1,000~~ ~~feet~~ ~~on~~ ~~each~~ ~~side~~ ~~in~~ ~~places~~ ~~where~~ ~~works~~ ~~are~~ ~~proposed.~~

The levels will be started from the plinth of milestone No. 19, Ganges Canal, B. L. 875.95, and ~~will~~ ~~terminate~~ ~~at~~ ~~the~~ ~~plinth~~ ~~of~~ ~~the~~ ~~canal~~ ~~milestone~~ ~~at~~ ~~the~~ ~~Bahadurabad~~ ~~bridge.~~ Several intermediate and ~~well~~ ~~described~~ ~~bench-~~ ~~marks~~ ~~will~~ ~~be~~ ~~recorded.~~

Notes for Survey and Levels—

General Survey—4 inches = 1 mile.

Plane-table detail—12 inches = 1 mile.

Sections, 8 inches = 1 mile horizontal.

10 inches = 1 inch vertical.

The report and specifications ~~will~~ ~~be~~ ~~concise,~~ ~~clearly~~ ~~written,~~ ~~and~~ ~~specify~~ ~~work~~ ~~consistent~~ ~~with~~ ~~the~~ ~~proposed~~ ~~for~~ ~~payment.~~ ~~The~~ ~~plans~~ ~~should~~ ~~be~~ ~~neatly~~ ~~drawn~~ ~~on~~ ~~a~~ ~~scale~~

The plans and drawings should be on sheets of the same size, numbered, signed and dated.

DRAWING.

MAY.

(Second Year).

The ~~is~~ ~~a~~ ~~section~~ ~~of~~ ~~a~~ ~~Railway~~ ~~culvert~~ ~~at~~ ~~place~~ ~~is~~ ~~an~~ ~~isometric~~ ~~projection.~~

JUNE.

(Second Year).

From rough sketch of a bridge draw—

[] showing roadway.

[] " " foundations from top of footings.

[] Elevation

[] Longitudinal section

[] section, [] through [] arch; cross section [] through [] of []

JUNE.

(First Year).

Note—Question 3 must be completed as far as possible in the first question attempted. In Question 1, only the regulating height [] are to be drawn.

1.—Print—

[] of Study

in [] [] 0·4 inch high.

Surveying (Curves)

in [] [] [] inch high.

Finishing 26th October, []

in italics, capitals $\frac{1}{8}$ inch, small letters $\frac{1}{16}$ inch.

2.—The scale of a plan is 1 in = 1 mile. Draw it showing yards, [] [] a comparative scale of paces, the length of a [] being [] inches, and a [] [] [] a man travelling at $3\frac{1}{2}$ miles an hour.

3.—Represent a line [] inches long in each of the following positions:—

(a). [] and inclined at 85° to the vertical plane of projection.

(b). Inclined at [] to the horizontal plane, [] [] projection making an angle of [] with the ground line.

(c). Making an angle [] with the horizontal, [] [] with the [] plane [] projection

4.—Draw an isometric projection of the skeleton of [] plan and [] are given, the point A to the front.

Orthographic scale, 1 foot = 1 inch.



3.—In the bridge given, draw out a sectional elevation on line BB at a scale of 4 feet = 1 inch.

Answer.

(First Year).

1.—A rectangular block 4 inches long, 2 inches wide, and 1 inch high has on each face a circle with centre at middle point of longer and equal the sides. The block is projected on the horizontal plane at an angle of 35° with the ground line, and its axis at the block at an angle of 30° with the horizontal plane. Draw (full size) plan and elevation of the block, and also, in a separate figure, a sectional elevation in a vertical plane making an angle of 15° with the vertical plane of projection, and bisecting the axis of the block.

2.—On line BB draw a sectional elevation of the building given.

Answer.

(Second Year)

Building from Specification.

Answer.

(First Year).

1.—A hexagonal pyramid has one resting on the horizontal plane, and its axis at an angle of 30° to the vertical plane, the front hexagon $1\frac{1}{2}$ inches, length of axis 4 inches.

out the _____ quarter of _____ whole _____ by theodolite, _____ the _____ quarter by offsets not exceeding 2 feet.

5.—Account _____ different arrangement of _____ in a _____ a level respectively.

6.—Why _____ necessary _____ a Dumpy level by tracing a level line in _____ air, when a Y level _____ be adjusted without _____

7.—Describe _____ briefly _____ you can the method of adjusting _____ theodolite.

_____ you have _____ given _____ the tops of _____ a level line.

8.—Explain how, _____ the double _____ Everest theodolite, _____ expedient _____ observing every point twice, _____ the _____ vertical axis in an opposite position _____ each occasion, eliminates all errors _____ to non-adjustment _____ the line of collimation, and of the _____ line of _____ on _____ vertical _____.

EXPERIMENTAL _____

MAT

(First and _____ Year).

1.—What _____ the advantages of the metric system of weights and _____

2.—Define specific heat, latent heat, unit of heat, _____ temperature, isomorphism _____ allotropism.

3.—State _____ laws connecting the volume, _____ temperature of a _____

4.—Describe the preparation and properties of oxygen gas. What is _____ and how _____ it be detected?

5.—What weight _____ could be obtained from 10 kilogrammes _____ mercury, and what volume would _____ occupy _____ 80° C. and 760 mm. pressure?

6.—What _____ the chief natural sources of nitrogen, _____ prepared?

7.—Explain _____ action of animals _____ plants _____ atmosphere.

8.—Name _____ compounds of ammonia. _____ in _____ and manufactures, _____ to which they are applied.

2.—Enumerate the various kinds of coal, and state, shortly, how they are formed.

10.—Describe a diagram the process of the process. What are the chief by-products of the process?

JULY.

(First and Second Year).

1.—Classify the various kinds of water, and state, shortly, how they are formed. How would you test a given sample of water for ascertaining whether it was fit for drinking purposes or not?

2.—When sending a sample of water to be analysed what precautions should be taken? What reagents would you adopt to purify a contaminated well, and explain how the agents used act?

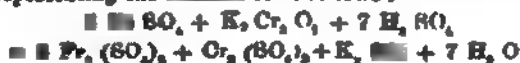
3.—Describe the preparation and properties of Sulphuric Acid. How may it be detected?

4.—How is "bleaching lime" prepared, and explain its bleaching action?

5.—Give a short account of the manufacture of Sulphuric Acid, and a large quantity.

6.—Trace the various stages in the process of manufacturing pig-iron from the ore of iron, explaining the chemical actions which take place.

7.—Explain shortly the principles on which volumetric analysis depends. How would you prepare a standard solution of potassium dichromate, so that 1 c.c. is equivalent to 0.01 gram of iron? The equation representing the reaction is as follows:—



8.—Explain the difference between dynamite and gun-cotton. What is the meaning of an explosive being "smokeless"?

AUGUST.

(Second Year)

1.—Make a qualitative analysis of the salt marked C.

2.—Find the formula of the salt marked D.

(First Year).

- 1.—Make a qualitative analysis of the salt marked A.
- 2.—Find the metallic radical in the solution marked B.

OCCURRENCE.

(Second and First Year).

- 1.—Name and sketch the axes of the crystallographic systems.
- 2.—What would be the resultant temperature of 100 gms. of mercury at 56° C. with 7 kilos. of ice at - 5° C. specific heat of mercury = 0.0333, and that of ice 0.513, latent heat being 79.
- 3.—State and explain Dulong and Petit's law of specific heats, show its application to the checking of the determination of atomic weights.
- 4.—How would you determine the proportion by volume of nitrogen in air? What other gases are present, and in what proportion?
- 5.—What steps would you take to quickly purify a well which is daily used and which you believe to have been contaminated? How would you afterwards test the water?
- 6.—Describe the properties of ammonia and the method of its preparation. Give the names and chemical formulas of the chief commercial products of ammonia and their application in the manufacture of fertilizers.
- 7.—Describe the action of bleaching lime in bleaching organic dyes.
- 8.—Describe the manufacture of a lucifer match, and the process of being ignited. In what way does it differ from a "safety" match?

FERROTYPE.—JULY.

(Second Year).

- 1.—Explain briefly the rationale of the Ferro-prussiate printing process. What proportions of the chemicals used will they stand by keeping? Should they be kept?

MONTHLY EXAMINATION,

2.—Describe fully _____ sensitive the _____ process-
_____ are necessary in damp weather, and why? How is it _____
_____ sensitized paper? What substance is to _____ added to the ordinary
working _____ preparing paper to _____ for subsequent use,
and _____ proportion should it _____ added?

3.—Enumerate _____ articles and materials required to enable you _____
_____ on _____ processes _____ printing ferro-prussiate _____ ferro-gallate copies.

4.—Describe _____ of tracing which gives _____ best print, giving
reasons for _____

5.—What regulates _____ length of exposure _____ ferro-prussiate and
ferro-gallate prints? _____ all you know _____ subject

6.—Describe an ordinary pressure frame, and _____ briefly the essential
points _____ looked _____ construction. In the absence of _____ pressure
frame, show how you would proceed to obtain prints by the ferro-
prussiate process?

7.—How may additions or obliterations of lines, figures, &c., be
made in _____ or blue _____ Ferrotypes copies?

8.—State _____ of the following _____ that _____ found
in ferrotype copies, _____ what remedy you would apply in each _____ —

- (a). When _____ print is weak looking, with the ground rather a light
blue, but lines clear,
 - (b). Print weak _____ having _____ somewhat "sunk-in" appearance,
ground of a dull blue colour, with lines rather indistinct _____
of a yellowish brown.
 - (c). _____ generally clear and well defined, _____ at places the lines
_____ and of a bluish colour.
-

UPPER SUBORDINATE CLASS.

MATHEMATICS.

ARITHMETIC.—ARITH.

(First Year).

1.—(i). Write in words 69040005820004.

(ii). Reduce $\frac{1569}{13353}$ and $\frac{23612}{22900}$ to their lowest terms.

(iii). Find the final remainder after subtracting 6734968 as many times as possible from 36082701.

2.—(a). Find the least number which when divided by 9, 16, 42, 63, 14, or 72 will leave a remainder of 1

(b). Divide $8\frac{1}{2} - 7\frac{3}{4}$ by $12\frac{1}{2} - 11\frac{3}{4}$, what result $\frac{1}{2} + \frac{1}{3} + \frac{1}{4}$.

(c). Find the difference between—

 $\frac{1}{2}$ of £78 16s. 2½d and £35 14s. 8½d. + 1½

3.—Supposing the Sun's distance to be 95,000,000 miles, and distance of a certain fixed star to be 206,265 times that of the Sun. time which light will take to travel from the star to the Earth, and from the fixed star to the Earth, the velocity of light being 186,000 miles per second.

4.—Three bells begin to toll together, and toll at intervals of 30, 40, 60 seconds respectively, when will they toll together again?

5.—Each copy of a newspaper, whose circulation is 242,000 copies a day, is on an area of 6 square feet: how many square miles will it occupy (3 days a week) in a week?

6.—Find the square root of $41\frac{1}{4}$ or $514\frac{1}{4}$.

7.—(a). Reduce 3,251,763 to pounds Troy.

(b). Reduce 9,850,873 square inches to roods, acres, perches.

8.—In how many of the following are equal numbers of half sovereigns, crowns, guineas, shillings, sixpences, and three

peany piece. Find the value of the mine in 15c. Find the value of the mine.

9.—The yield of a gold mine from 1000 tons of ore sent; how much gold does a ton of ore yield than before?

10.—If 5 men and 9 boys could do a piece of work in 17 days, how many days could 9 men and 12 boys do it, the work of two men being equal to that of three boys?

GEOMETRY.—May.

(First Year).

1.—If two straight lines AB, DE cut each other at vertical or opposite angles ACD, BCE are equal.

2.—If from C, the middle of a straight line AB, a perpendicular CD, is drawn to the line—(1), every point in the perpendicular is equally distant from the extremities of the line AB; (2), every point without the perpendicular is at unequal distances from the extremities, A, B.

3.—The sum of all the interior angles of a polygon is equal to as many right angles, wanting four, as the figure has sides.

4.—The opposite angles of any quadrilateral figure ABCD, inscribed in a circle, are together equal to two right angles.

5.—The angle ADE, in a semicircle is a right angle, the angle ABD in a segment greater than a semicircle is less than a right angle, the angle AFD in a segment less than a semicircle is greater than a right angle.

6.—The angle formed without a circle by two lines cutting it, is equal to the angle in the circumference standing upon the intercepted arc BD, AC.

7.—If a straight line, AC, be divided into any two parts at B, the square upon the whole line AC is equal to the square upon the part AB, BC, together with twice the rectangle contained by the parts.

8.—The rectangle contained by the sum and difference of two straight lines is equal to the difference of the squares upon the lines.

9.—In a given circle find a point equidistant from two given points without it (see Question 3).

10.—Upon a given straight line an equilateral equiangular octagon (see Question 3).

TRIGONOMETRY.—MAY

(Second Year).

1.—Demonstrate the following identities —

(a). $\sec^2 A = \sec^2 A + \operatorname{cosec}^2 A$.

(b). $\sec^2 A + \operatorname{versine}^2 A = (1 + \cos A)$.

2.—The sum of two angles is 30 grades and their difference is 10 degrees: find each angle

3.—Express the cosecant in terms of the cotangent, and the cotangent in terms of the cosecant

4.—Find A and B from the following equations —

$$\frac{\sin A}{\cos B} = \frac{\sqrt{3}}{\sqrt{2}}, \quad \frac{\cos A}{\sin B} = \frac{1}{\sqrt{2}}$$

5.—Find by logarithms the value of

$$\frac{(307)^2 \times 42}{4275 + 504} + \sqrt{9284} + 128.$$

6.—A and B are two stations on a hill, the inclination of the hill to the horizon is 80° ; the distance between A and B is 100 yards. The inclination of another hill in the same vertical plane as A and B on a level with A, the elevation above the horizon is 15° find the distance between A and C.

7.—While sailing S. W. two ships are seen at anchor, one N. N. W. and the other W. N. W. After sailing 5 miles these ships are seen N. and W respectively. Determine their bearing and distance.

8.—The sides of a triangle are 7, 8, 18; find the greatest angle.

9.—The sides of a triangle are respectively 10, 15 feet, and the included angle is 120° find the third side and the perpendicular from the vertex of the given angle.

EXERCISES IN TRIGONOMETRY.—JUNE

(First Year)

1.—(i). Multiply $x^2 + y^2 - z^2 - 1$ by $x^2 + y^2 + z^2 + 1$.

(ii). Divide $27x^3 + y^3 + 8 - 18xy$ by $3x + y + 2$.

2.—Reduce ■■■ to their simplest forms—

$$(2x^2 - 2y^2 - z^2) - (3y^2 + 2x^2 - z^2) - (3x^2 - 2y^2 - z^2), \quad \text{■■■}$$

$$\{x^2 + y^2 - (3x^2y + 3xy^2)\} - \{(x^2 - 3x^2y) - (3xy^2 - y^2)\}.$$

3.—Resolve into elementary factors—

$$a^2x^2 - 3ax + 2a^2, \text{ and } 12x^2 + a^2x^2 - a^2.$$

4.—Solve ■■■ following equations —

$$(i). \quad \frac{1}{x} (2x - 3) - \frac{1}{x} (3x - 2) = \frac{1}{x} (4x - 5) - 3\frac{1}{x}$$

$$(ii). \quad \frac{(2x + 3)x}{2x + 1} + \frac{1}{3x} = x + 1$$

$$(iii). \quad \frac{12}{x-2} + \frac{4}{x-3} = \frac{32}{x+5}$$

5.—Find the square ■■■ of—

$$a^2 - 4x^2 + 10x^2 - 20x^2 + 25x^2 - 34x + 16.$$

6.—Find the Greatest Common Measure of—

$$20x^4 + x^2 - 1 \text{ and } 25x^4 + 3x^2 - x - 1;$$

and the Least Common Multiple of—

$$4 (a^2 - a) \text{ and } 5 (a^2 + a).$$

7.—Reduce to its lowest terms—

$$\frac{\text{■■■} + 10a^2x + 5a^2x^2}{a^2x + 5a^2x^2 + 2ax^2 + a^2}$$

8.—A grocer bought tea at 8s. 9d per lb., and coffee ■ 1s. 3d. per lb., ■■■ amount altogether of £12 15s., he sold the tea ■ 6d., ■■■ the coffee ■ 1s. 6d., and gained 20s. by the bargain, how many lbs ■■■ did he buy?

9.—A tailor bought a piece of cloth for £147, from which ■■■ 12 yards for his ■■■ use, ■■■ sold ■■■ remainder for £120 5s., charging 6s. per yard more than he gave for it. Find how many yards there were, ■■■ what it cost him per yard.

MENSURATION.—JULY

(First and Second Year)

1.—The radii ■ the ends of a frustum of a ■■■ are ■ ■■■ and 8 feet, and ■■■ height ■ 5 feet if the frustum ■ divided ■■■ of equal curved surface, ■■■ the slant height of each part.

■ —Find the side ■ an equilateral triangle inscribed ■ a circle whose ■■■ is ■■■ ■■■

3.—If gold be beaten out so thin that an ounce will cover a leaf of 100 square yards, how many of these leaves will cover a square foot thick, the weight of a cubic foot of gold being 10 cwt, 95 lbs.

4.—Find how many trees there are in a wood one mile long and a quarter-of-a-mile wide, supposing on an average four trees grow on a chain.

5.—Required the volume of a rectangular parallelepiped which is 100 feet long, 5 feet 6 inches broad, and 1 foot 11 inches high. Find also the length of its longest diagonal.

6.—An iron pipe 12 inches in bore, half an inch thick and 100 feet long find its weight, supposing that a cubic inch of iron weighs 7½ ounces.

7.—A sphere, 16 inches in diameter, is divided into four parts of equal height by three parallel planes, find the volume of each part.

8.—The height of a cylinder is to be equal to the radius of the base, and the volume is to be 500 cubic inches, find the height.

9.—Verify the following proposition by examples.—The area of the annulus between two concentric circles is equal to the area of a circle which has for its diameter a chord of the outer circle which touches the inner circle. The radii of the concentric circles are 10 and 6.

10.—Find the quantity of masonry in a roof arch, and its cost at Rs. 10 per 100 cubic feet. Dimensions—length of arch 40 feet, height 12 feet, thickness 3 feet, and thickness 11 inches.

CIVIL ENGINEERING

BUILDING MATERIALS.—JUNE

(First Year).

1.—What are igneous and sedimentary rocks? To which of the following kinds of stone belong—

Granite, quartz, marble, gypsum, sandstone, limestone

Give a short description of each kind, and the work for which it is suited, and the locality in India where it is obtained. Materials used in the College corridor.

2.—Describe the manufacture and burning of bricks as seen by you at Buxton. Tell us the process in the following order :—

2.—Give similar information regarding the manufacture of the same (see Question 2). How was the same being brought to the market?

4.—Which class of work is best suited (a), for pucks, (b) for walls subject to great pressure; (c), for kucka-pucka masonry, (d), for kucka masonry? What would be the objection to using only kucka for all kinds of masonry?

8.—What is the local cost of the following items of material, and give details to show how the rate is arrived at in each case. —

Describe how they are made.

6.—Give a _____ a parawa. How is it loaded _____ unloaded? What kind of fuel is most generally used? What is about _____ cost _____ burning bricks, per lakh, by this method? Under _____ used for brick-burning?

7.—Describe the common method of burning lime in small quantities. Describe and give dimensioned sketches of a good form of kiln for burning lime in large quantities. What advantages does the latter have over the former?

B.—Describe the blasting operations of sinking a well through rock.

9.—Name at least six of the most useful kinds of trees for building purposes. Give a brief description of each, stating the kind of work for which it is best suited, and the locality where it is grown.

10.—Give a sketch of a blast furnace. What are castings made at the Canal Foundry.

APPLIED MECHANICS—JUNE

(Second Year).

1.—Define—Unit force, parallelogram force, work,

2.—A hole is punched through a plate of wrought-iron $\frac{1}{2}$ in thickness, $\frac{1}{2}$ in. punch actuating $\frac{1}{2}$ inch punch is estimated at 36 $\frac{1}{2}$. Assuming $\frac{1}{2}$ the resistance to the punch is uniform, find the $\frac{1}{2}$ of work done.

3.—A chain weighing $\frac{1}{2}$ lbs. to $\frac{1}{2}$ fathom is employed $\frac{1}{2}$ to a height of 30 feet by winding the chain on a $\frac{1}{2}$. Find by $\frac{1}{2}$ and by a $\frac{1}{2}$ diagram of work how $\frac{1}{2}$ work will be expended (a), when the outer end of the $\frac{1}{2}$ is brought $\frac{1}{2}$ the barrel, (b), $\frac{1}{2}$ of it are $\frac{1}{2}$ hanging free with the weight at $\frac{1}{2}$.

4.—Three forces 12, 10 and 8 lbs. act along parallel lines on a rigid body, show by a sketch how they may be adjusted so as to be in equilibrium.

5.—A uniform bar 4 $\frac{1}{2}$ long $\frac{1}{2}$ weighing $\frac{1}{2}$ lbs. $\frac{1}{2}$ a fulcrum $\frac{1}{2}$ end, and a weight of 10 lbs. is hung upon the bar at a distance of 1 foot from the fulcrum. Find the upward force $\frac{1}{2}$ and which will keep the bar horizontal.

6.—Define work put in, lost in, and got out of, a machine, $\frac{1}{2}$ prove that the work put in equals lost work plus the useful work. $\frac{1}{2}$ is the "advantage" and the efficiency of a machine reckoned?

7.—The crank or handle which $\frac{1}{2}$ a windlass $\frac{1}{2}$ inches $\frac{1}{2}$ length, what must be the diameter of the axle when a $\frac{1}{2}$ exerting a force of 60 lbs. upon the handle $\frac{1}{2}$ a tab of $\frac{1}{2}$ weighing $\frac{1}{2}$ cwt.?

8.—Suppose that your weight is $\frac{1}{2}$ 10 lbs., and $\frac{1}{2}$ you lift a weight of $\frac{1}{2}$ cwt. on your shoulder, $\frac{1}{2}$ walk $\frac{1}{2}$ with it $\frac{1}{2}$ a height $\frac{1}{2}$ feet, what work have you expended, and $\frac{1}{2}$ will be your efficiency as a machine?

9.—Explain how you would prove the truth of the parallelogram of $\frac{1}{2}$ by experiment. $\frac{1}{2}$ vertical force of $\frac{1}{2}$ lbs. $\frac{1}{2}$ balanced by two forces $\frac{1}{2}$ lbs. $\frac{1}{2}$ lbs. $\frac{1}{2}$ their directions $\frac{1}{2}$ angle between them.

MASONRY.—JULY.

(First Year).

1.—Foundation $\frac{1}{2}$ usually divided into three classes. $\frac{1}{2}$ and $\frac{1}{2}$ fully $\frac{1}{2}$ of $\frac{1}{2}$.

2.—Describe briefly the principles of _____ adopted in _____ the Solani Aqueduct.

3.—Show, by sketch, how you _____ make a _____ for _____ foundation _____ a _____ 2' x 6'. The rate of the pier _____ sand _____ a depth of 5 feet, _____ stiff clay is found. Puddling material is _____ _____ etc. Describe in detail how the work _____ done.

4.—What peculiarity _____ there in the construction _____ How _____ shaped? _____ have to _____ adopted to _____ sure _____ being laid properly?

5.—What _____ bond for bridge arches, _____ by sketch. Show _____ by _____ alternative _____ of a brick masonry wall, one-and-a-half _____ thick, and state _____ of bond you use.

6.—Show, by sketch, how the centerings were made for _____ doorway _____ of the staff quarters, _____ E. Lines, which _____ recently remodelled. _____ arches (scale $\frac{1}{16}$) showing the points of springing on both _____ the doorway clearly.

7.—What are hollow revetments? Give a sketch of _____ and explain _____ fully.

8.—At points A, B, C, D, E, which are bridge _____ miles apart, on a canal alignment running East and West, materials have to _____ collected from a central depot, which is situated _____ miles South of C, or _____ of alignment. The carriage _____ bricks costs 8 annas per mile per thousand, and that of lime costs 8 _____ per mile per 100 maunds. Find _____ average _____ of carriage of bricks per thousand landed _____ the _____ by the shortest route, also the average _____ of carrying _____ per 100 maunds.

9.—(See preceding Question) Taking the _____ of bricks at _____ depot _____ 11 per 1000, and that of lime _____ Re. _____ per 100 maunds; labour _____ the _____ sites _____ 4-8 per _____ cubic _____ of masonry, surkh _____ 12 per 100 cubic feet, strike _____ for masonry, _____ cubic feet, _____ all _____ works along _____ line.

BRIDGES—JULY.

(Second Year).

1.—Show, by sketches, how _____ Sher _____ bridge _____ the _____ river near _____ was protected _____ training works.

- 2.—Describe the method adopted (see preceding question), and was it successful.
- 3.—State the reasons in favour of the particular style of training, (see Question No. 1).
- 4.—Describe the method of finding the discharge of a canal by means of floating.
- 5.—If in charge of a railway bridge, and when on inspecting a heavy load you find a great hole scooped out by the load round one of the piers, state what you would do under the circumstances.
- 6.—Describe, and show by sketch, some of the best methods of filling up the spandrels of arches.
- 7.—Compare the merits of deep and shallow foundations. To which class does the Bannockburn bridge belong (see sketch in the Model Room).
- 8.—Show, by sketches, and give explanation of the method of constructing temporary wire bridges in Gilgit (1891-98).
- 9.—Give a sketch of the Bone Causeway. Explain how it was constructed. Why was a causeway constructed there in preference to a bridge?

CARPENTRY.—Answer.

(First Year)

- 1.—Show, by sketch, how the iron tie-rods of the truss which were recently put up on the Staff Quarters, B E, were secured to the rafters. Give dimensions of both rafters and tie.
- 2.—Sketch in neatly all the roof timbers of the buildings shown to (see Question No. 1). Give their scantlings and show clearly the joints of each joint.
- 3.—What is a plain butt joint? Under what conditions should it be used in preference to any other kind of joint? Illustrate your views by sketch.
- 4.—Show how two pieces of timber should be scarfed in tension. Scantlings 4" x 4". Scale $\frac{1}{2}$.
- 5.—Name the timbers required to support a terraced roof to cover a room 20' x 16'. What should be their scantlings? Show, by

sketch, the positions of the various pieces and how they are secured to another, and the walls.

6.—In a room $30' \times 12'$, draw a plan of a dog-legged stair. Tread 12 inches, rise 6 inches, height of lower storey 18 feet. Draw the elevation of the stairs. Scale $\frac{1}{2}$.

7.—Show how to join two pieces of wood $8" \times 4"$ scantlings together, so as to be suitable for a verandah post. Scale $\frac{1}{2}$. What is the nature of the stress to which a verandah post is subjected?

MECHANICS.—August.

(First and Second Year).

1.—Define—Density, tenacity, stress, strain and load.

2.—Find what weight a deodar wood post $6" \times 6" \times 10'$ long will bear with safety? Taking the crushing strain of deodar as 5,000 lbs. Factor of safety 10.

3.—Find the breaking weight at the centre of a beam of fir, 12 inches deep, 4 inches wide and 10 feet long between the points of support. The breaking weight at the ends of a beam 1 foot long and 1 inch square is 10 lbs.

4.—A round bar of steel 1 inch in diameter and 10 feet long, is fixed at its upper end, and a load is applied to the bottom end and stretches it 0.8". Find the modulus of elasticity is 30,000,000 lbs.

5.—Find, by construction, the stress on each part of a king-post truss, span 24 feet, height 8 feet, load 700 lbs. per foot of rafter, applied at the joints only.

Draw the frame-diagram 4 feet to 1 inch; for stress-diagram 2,000 lbs. to 1 inch.

6.—A barge, supposed to be of rectangular section, 40 feet long, 10 feet wide and 3 feet deep outside. The weight of the barge is 0.1 foot, and the weight of the cargo of iron they are composed of is 100 lbs per cubic foot. Find how many tons of cargo the barge will carry.

7.—The discharge from an orifice 1 inch square, at a head of 1 foot is 1 cubic foot per minute. Find the coefficient.

8.—A notch is of the form of a right-angled triangle. [redacted] the discharge when the width of the notch at the water surface measures [redacted]

RAILWAYS—November.



(Second Year).

1.—Sketch, _____ dimensions, one good pattern _____ following.—
Sleeper, chair, Ash-plate, fang-belt.

██████████ or ██████████ approved pattern of permanent way now
use in India (these are ██████████ the Model Room).

■ Draw a plan of a metre-gauge single line railway

4.—What are the ordinary gauges used on railways in England? What is the standard gauge for India?

5.—What is the use of a check rail on a very sharp curve? 
 position  by a sketch.

6.—What ~~are~~ crossings? What precautions ~~are~~ ~~to~~ ~~be~~ ~~observed~~ ~~at~~ ~~these~~ ~~crossings~~ ~~to~~ ~~prevent~~ ~~accidents~~ ~~at~~ ~~these~~ ~~crossings~~?

7.—Describe the method of setting-out tunnels.

8.—What considerations should guide you in the selection of a route
for a railway between any two points?

EARTHWORK—Dredging

(First Four)

1.—Define—Lockspit, length of lead, made earth, ~~bank~~ banks, ~~cuttings~~ cuttings, side-long ground, bowing staves, bevil plumb rule, clinometer.

2.—Explain three ways in which an individual may be influenced. What are the advantages and disadvantages of each, and under what circumstances may each be adopted?

2.—Sketch and describe fully the method of changing the course of a river.

4.—What are the tools necessary for blasting rock, and _____ of materials of which the blasting tools should be made, giving the reasons which lead to the choice of material.

5.—When taking out a cutting, how is a record kept of the original surface of the ground? How are side slopes of a cutting dressed off accurately?

6.—How should breaches or hollows in embankments be closed, and how should they be taken for the purpose?

7.—Find the cost of rock-cutting on a piece of road, 1000 ft. of which are given on the accompanying section, at the rate of Rs. 2 per hundred cubic feet. The cutting is perpendicular. The road, which is 20 feet wide, falls from A towards B with a gradient of 1 in 20; its formation level at A being 8 feet below the ground line. The ground slopes across the line of road in the proportion of 1 in 10.



8.—A cutting with side slopes 2 to 1 has to be taken through ground sloping across the line in the proportion of 1 in 7. Find the lengths of the side widths.

Width of cutting at bottom 12 feet, and central depth 10 feet.

ROADS.—JANUARY

(Second Year).

1.—What do you understand by the following expressions:—A road having a gradient of 1 in 100, a cutting whose slope is 2 to 1; a road whose co-efficient of friction is 1-16th, made-long ground; ruling gradient; watershed of a country.

2.—Would you make any difference in the side slopes of a cutting and an embankment for a road in the same soil? Give reasons for your answer. In what way is it usual to protect the slopes of cuttings and embankments from the effects of the weather?

3.—When a road is taken through a flat country as an embankment, what should be its minimum height above the highest known flood level? What are the reasons for thus fixing this height?

UPPER SUBORDINATE CLASS.

4.—Give a sketch, with dimensions, of a first class road in passing through valuable land, having heavy it: another section of the same class of road passing through ordinary

5.—Give a specification for repairing a new inches layer of kankar, detailing collection stacking kankar, preparation surface of old layer, consolidation, What for this work?

6.—A temporary road has to be taken the sandy bed of a river. How would making it?

7.—In fixing the alignment for a new line of road, by might length justifiably increased in order to bring it nearer to kankar quarries? your

8.—In designing a road, is straightness of its importance its gradients? On looking at a map of a straight over a hilly country, what opinion form respecting the

9.—What is moorum? its properties as a is generally be found? What material exists and kankar metalling?

(Second Year)

MAY—Earthwork.

JUNE—Bridge.

JULY—Building.

AUGUST—Building.

PROJECT

(Second Year).

1.—Design a Cook-house, for 50 men, for the use of the Upper Subordinate Class.

2.—The present cook-house to be dismantled to make room for the proposed **mess hall**.

3.—All drawings, plan and survey will be on one sheet of paper.

4.—The report and specification should be concise and clear.

5.—Seventy-five **marks** will be given for the Project. Details as follows :—

(a).	Report and specification,...	...	...	10
(b).	Estimate, ...	...	...	5
(c).	Engineering, ...	...	...	25
(d).	Calculations, ...	...	...	5
(e).	Drawing, ...	...	...	5
Total,				50

Students obtain passing **marks** all sub-heads **marks** attempted. **General** **marks** in the way **marks** Project is submitted will be **marks** in the marking.

MECHANICAL ENGINEERING—JANUARY.

(Second Year)

Students a working plan of the foundation trench of the bridge **syphon** shown in the drawing before you. The bottom of **the** trench will be **1/2** wider, on either side, than the foundations, **its** **slopes** will slope at $\frac{1}{2}$ up to the ground surface, the level of which **is** shown by the **level** of the road-metalling **on** the **level** on A.A.

All slopes to be coloured in burnt sienna.

Scale, 10 **feet** to **1** inch.

Students all dimensions clearly **and** neatly on the plan, **then** **will** be subsequently **used** for laying **the** tracing down on **the** ground.

MECHANICAL ENGINEERING—FEBRUARY.

(Second Year).

1.—Given a curve laid out on **the** ground, **which** as a line of rails already laid, how would you determine its degree of curvature and the direction of **the** tangent at any given point ?

- 7.—How many additions or omissions of lines, figures, &c.,
 8.—State cause of following defects that sometimes found in ferrotype copies, what remedy you would apply —
- (a). the print weak looking, with the ground rather a light blue, but lines clear.
 - (b). having a somewhat "sunk-in" ground of a dull blue colour, with indistinct and a yellowish brown.
 - (c). generally clear and well defined, places the lines blurred and of a bluish colour.

SURVEYING

DISCUSSION.

(First Second Year).

Note.—First Year Students to omit Question 9

1.—Define "Azimuth," "Datum Line," "Traverse," "Line of Collimation," "Reduced Level," "Refraction," "Parallax"

2.—What is the difference between a bearing and an inward angle? Explain how you would repeat an angle, and what is the advantage gained?

3.—Show two correct methods for finding the width of a river, (i), supposing you have an angular instrument; (ii), if you have a chain only.

4.—What is the difference between the measuring chain generally used in India and Gunter's chain? What particular kind of work is the latter adapted for?

5.—What do you understand by the term "compound levelling"? Suppose your level out of adjustment, what precautions would you employ in using it in the field to prevent errors accumulating?

6.—In running a line levels on a certain bearing, two serious obstacles, a large village and a jhil, are met with. The village is through, the jhil can be crossed from either side.

you propose to pick both the levels and bearing on the line of obstacles?

7.—What is the use of bench-marks, and what are suitable positions for them? In running a line of levels how should they be left? If an object on which to leave a bench-mark can be found, how would you construct it?

8.—Complete the accompanying Traverse Table and plot it on a scale of 100 inches = a mile.

9.—Of what use is a Vernier Scale? Why is it not an ordinary scale? Is it as applicable? Does it make any difference whether $(n - 1)$ or $(n + 1)$ parts of the primary scale be divided into n parts of the Vernier Scale?

FINAL EXAMINATION, MARCH, 1897.

ENGINEER CLASS.

No. 35 — ARITHMETIC.

1.—Multiply 285 ■ 4 02; divide 2 961 by 007, and find ■ value of 2 778125 of 6s. 8d.

2.—A cubic foot of wood weighs $11\frac{1}{2}$ lbs., what ■ weight of ■ beam 24 feet long, $2\frac{1}{2}$ feet wide, and $2\frac{1}{2}$ feet thick, ■ what ■ its value at $3\frac{1}{2}$ per cubic foot?

3.—The ■ of a pound of gold is four times that of a pound of silver, and the weights of equal quantities of gold and silver are in the ratio of 19 to 10, find the value of a bar of silver equal ■ ■ £1,750.

4.—A watch gains 1 minute and 15 seconds a day. It is ■ right ■ noon on the 12th November what will be the true time when it points at ■ on the following Christmas day?

5.—(a) Find the Greatest Common Measure of 5,916, 94,806 ■ 182,787

(b). Find the Least Common Multiple of 16, 90, 91, ■ and 455.

■ —Simplify ■ following expression —

$$\frac{\frac{1}{2} \text{ of } 6\frac{1}{2} \text{ of } 24\frac{1}{2} - 4\frac{1}{2} \times \frac{2\frac{1}{2}}{3\frac{1}{2}} - \frac{2\frac{1}{2}}{14\frac{1}{2}}}{6\frac{1}{2} \times 24\frac{1}{2} - 4\frac{1}{2} - 7\frac{1}{2} \times 2\frac{1}{2} - 14\frac{1}{2}} \times 4\frac{1}{2} \text{ of } \blacksquare 17s.$$

7.—If ■ ■ cwt. ■ grs. ■ lbs 1 ■ ■ £722 4s. $4\frac{1}{2}$ d., find cost of ■ tone 8 cwt. 1 qr 23 ■ ■

8.—The ■ dividend paid during ■ years by a railway company ■ ■ per cent. ■ dividends paid ■ the ■ ■ years were ■ ■ respectively, $3\frac{1}{2}$, $3\frac{1}{2}$, 4, 4, $4\frac{1}{2}$, 4 per cent. What ■ ■ ■ ■ in ■ ■ year?

9.—What would be the ready payment of an £13s. 6d., discount being at 5 per cent.?

10.—An up train 88 yards long, travelling the of miles an hour, a down train yards long at 12 o'clock, it in seconds. At 15 minutes and 6 seconds past 12 o'clock train a second down 152 yards long, and it in 6 seconds, what will the second down train run first?

No. 12.—ALGEBRA

1.—Simplify—

$$(i). \{x - \frac{1}{2}(x - 1)\} \{x - \frac{3}{4}(x - 2)\} \{x - \frac{5}{8}(x - \frac{1}{2})\}.$$

$$(ii). \frac{a^3}{(a-b)(a-c)} - \frac{b^3}{(a-b)(b-c)} + \frac{c^3}{(c-a)(c-b)}$$

2.—Find the meaning of a^{-2} when a is a positive number, whole fractional, and also find a meaning for a^x .

—Find values for x and y from the following equations:—

$$(i). \left. \begin{aligned} \frac{7x - (y + 2)}{4} &= \frac{12x - 3y + 6}{5} \\ \frac{6x - y}{20 - 1(x + y)} &= \frac{1}{10} \end{aligned} \right\}$$

$$(ii). \left. \begin{aligned} 2x^2 - 2xy + y^2 &= 65 \\ x^2 + 2xy - 2y^2 &= 38 \end{aligned} \right\}$$

4.—Write down the and the product of the roots the equation $15x^2 - 64x + 65 = 0$.

—Find the value of a recurring decimal.

6.—A and B talking. A says to B—"I am twice the you were when I was the age you are, when you are the I am united ages will be 63." What the present of A and B?

7.—Find sum to of the series

$$1\frac{1}{2} + 1\frac{48}{63} + 2\frac{16}{63} + \dots$$

infinity

$$2, -6, + \dots$$

8.—Find the number of permutations of n things taken all together which all different.

A cricket eleven to chosen from twenty-two men, of whom cannot bowl and cannot bat. of six bowlers. In how ways chosen?

8.—Prove that—in the expansion of $(1+x)^n$ the r^{th} term from the end is equal to the co-efficient of the r^{th} term from the beginning

No. 15.—GEOMETRY.

N.B.—Engineers Class to do Questions 1 to 9 inclusive.

Upper Subordinate Class to do Questions 1 to 5, 8 and 11.

1.—Define the following terms:—A plane superficies, a surface triangle, a regular polygon, a segment of a circle, similar figures.

2.—If two straight lines AB, DE cut another line C, the vertical opposite angles ACD, BDE are equal.

3.—If one side of a triangle ABC be produced to D, the angle ACD is equal to the two interior and opposite angles, and the three interior angles of every triangle together equal to two right angles.

4.—The opposite angles of any quadrilateral figure ABOD inscribed in a circle together equal to two right angles.

5.—A and B are two inaccessible points on the farther bank of a river show how to find the distance between them.

6.—Define the following terms —A solid, a cone, a cube

7.—To inscribe a circle in a given triangle.

8.—To find a third proportional to two given straight lines

9.—If two planes cut another their intersection is a straight line.

10.—The square upon the hypotenuse of any right-angled triangle is equal to the sum of the squares upon the two other sides

11.—Show how to make a square equivalent to a given triangle.

No. 28.—TRIGONOMETRY.

Upper Subordinate Students to do questions 1 to 10

1.—Express the diagonals of a parallelogram in terms of two adjacent sides and the sine of the acute angle of the figure.

Express $\sin 2A$ in terms of $\sin A$.

2.—Prove the following identities —

(a). $\sin A$ is the Arithmetic Mean of $\sin A$ and $\cos A$ that—

$$\cos 2B = \cos^2 (A + 45^\circ)$$

$$(3). \frac{\sin A + 1}{\sin A - 1} - \frac{\sin A - 1}{\sin A + 1} = 4 \cot A \cdot \csc A.$$

$$(4). \csc A (\sec A - 1) + \sin A = \cot A (1 - \cos A) + \tan A.$$

8.—Prove that the log of any power integral is fractional of a number equals product of the log of the base and the log of the power, and that—

$$\log_2 2 \times \log_2 4 \times \log_2 8 = 1.$$

$$\text{Given } \log 2 = .30103 \quad \log 4 = .60206 \quad \log 8 = .90309.$$

4.—The sides a, b, c , of a triangle are the numbers 4, 5, 6. Find angle B .

5.—Find θ in the following equations:—

$$(a). 2 \sin \theta \tan \theta + 1 = \tan \theta + 2 \sin \theta$$

$$(b). \sin \theta + \cot \theta = 4.$$

6.—For a triangle ABC, $b = 723$, $c = 359$, $A = 50^\circ 18'$. Find the triangle.

7.—Two chimneys of equal height. A person standing between them on a straight line joining their bases, observes the elevation of one to be 60° . After walking 100 feet in the direction at right angles to the straight line joining their bases, he observes the elevation of the other to be 45° and 30° respectively. Find their height and the distance between them.

8.—Show that—

$$(1). \tan^{-1} \frac{\sqrt{5}+1}{\sqrt{5}-1} - \tan^{-1} \frac{1}{\sqrt{5}} = \frac{1}{2} \sin^{-1} \frac{2}{5} + \tan^{-1} \frac{1}{2}$$

$$(2). \text{ If } \sec \theta - \csc \theta = \frac{1}{2}, \theta = \frac{1}{2} \sin^{-1} \frac{3}{4}.$$

9.—Find an expression for the radius of the incircle of a triangle.

Show that $\Delta s = \Delta \csc \frac{A}{2} \cdot \csc \frac{B}{2} \cdot \csc \frac{C}{2}$ where Δ is the area of triangle ABC.

10.—Prove DeMoivre's theorem when n is a positive integer.

Find the cube root of $a + b(\sqrt{-1})$.

No. 30.—MENSURATION.

1.—Two equal circles of one inch radius, are distant two inches from each other, and a cord tightly round them, crossing between them; find the length of the cord and the area enclosed by it.

2.—How many bullets of a quarter of an inch in diameter can be made from metal of a spherical ball 12 inches in diameter, assuming no waste in the process?

2.—The adjacent edges of a rectangular \square are $3\sqrt{28571}$, $5\sqrt{12857}$, and $10\sqrt{28571}$ inches; find the cost of gilding the exterior at $1\frac{1}{2}$ d. per square inch.

4.—A frustum of a circular cone is trimmed just enough to reduce it to a frustum of a pyramid with square ends. How much of the volume is removed.

5.—Find the number of gallons of water required to fill a tank the depth of which is $4\frac{1}{2}$ feet, and the top and bottom of which are rectangles, the corresponding dimensions of which are $250' \times 15'$, and $240' \times 14'$.

6.—The radius of the inner surface of a leaden pipe is $1\frac{1}{2}$ inches, and the radius of the outer surface is $1\frac{1}{4}$ inches. If the pipe be melted, and recast into a solid cylinder of the same length as before, find the radius.

7.—The cost of a cube of metal at $\pounds 10s\ 4d.$ per cubic inch, is $\pounds 1,208\ 4s\ 4d.$ find the cost of gilding it at $\frac{1}{2}$ d. per square inch.

8.—The perimeter of one square is 748 inches, and that of another is 616 inches. find the perimeter of a square which is equal in area to the other two.

9.—A circle whose diameter is 10 inches passes through the extremities of a diameter of another, and the radius is at right angles. find the area of the part common to both.

10.—A shell of a sphere is $\frac{1}{2}$ inches in thickness; the diameter of the base is 12 inches, and that of the top 9 inches. find the surface and volume.

MECHANICS AND CONIC SECTIONS.

NO. 1.—MECHANICS, PART I.

1.—What is the difference between uniform and variable velocity? How are they measured? How is variable acceleration measured?

Two trains pass through stations 100 miles apart. One is moving with a velocity of 30 miles per hour. They are respectively accelerated at $1\frac{1}{2}$ and $2\frac{1}{2}$ miles per hour. When and where will they meet, and what will be their velocities?

2.—Two spheres of glass 5 and 8 inches in diameter are moving with velocities of 12 and 18 inches per second (1), in the same direction, (2) in

opposite directions. The co-efficient of rebound is $\frac{1}{2}$. The impact.

3.—If a weight W connected by a weightless string hanging over a pulley with a scale pan containing two weights, each equal to W , lying upon the other, find the pressures during free motion these weights, the weight of the pan being neglected.

4.—Define Work, Kinetic Energy, Potential Energy. Prove that when a body, the change in kinetic energy is equal to the work done by the blow.

5.—Two particles are started simultaneously from the points A and B, 200 ft. apart, one from A towards B with a velocity which would reach B in 3 seconds, and the other at right angles to the former, and with three-fourths of its velocity. Find their relative velocity magnitude and direction, the shortest distance between them, and at which they are nearest to one another.

6.—A man, weighing 120 lbs. is riding a bicycle weighing 20 lbs. at a uniform speed of 8 miles per hour down an incline of 1 in 100, against the resistance of the road, without working the pedals; find the horse-power the man works at in order to climb a hill of 1 in 200 at the same speed, the cranks being 6 inches long and making 100 revolutions a minute?

7.—Define a couple. Find a formula to determine the position of the resultant of parallel forces of any number of parallel forces.

8.—A ball, of which μ is the modulus of elasticity, after dropping through a height h , strikes a point A, a plane inclined to the horizon at an angle α and afterwards passes through a point B in a horizontal line through A. Find the time of moving from A to B, and show the problem is impossible if μ is less than $\tan^2 \alpha$.

9.—One end of a string is fixed to a weight P, the string passes over a pulley, and under a moveable pulley, which has its other end fixed to a point, a weight Q is attached to the moveable pulley; determine the three portions of the string are all parallel.

NO. 17.—MECHANICS, PART II.

1.—Find the horse-power of a water wheel supposing the stream to be 5 feet broad and 2 feet deep, and to flow with a velocity of

80 feet per minute, the height of the fall being 14 feet, and the efficiency of the machine being .83.

2.—In the system of pulleys in which each pulley has one end fixed, passes round a pulley, and is attached to the preceding one, find the force exerted, when the weights of the pulleys are taken into account.

3.—A pulley of 12 inch diameter is used in the mine. A still is attached to the highest point, and empties the mine after a quarter of a revolution. Compare the power it produces and the efficiency of the still (1) 20, (2) 40 revolutions in a minute.

4.—In what time can a train going 30 miles an hour be brought to rest by the brakes, supposing them to press on the wheels with a force equal to the weight of the train and a co-efficient of friction .18 in the wheels on a plane inclined of 1 in 100 lb. weight per ton on the level.

5.—A ball is thrown from a height h on a horizontal plane at an angle θ to the horizontal; falls, and rebounds again, and so on. Find the sum of the spaces described.

6.—A body is projected with the velocity u at an angle θ to the horizon, and by continually rebounding on the horizontal plane describes a series of parabolas. Find the sum of the spaces and the time which elapses before the body ceases to rebound.

7.—If a railway carriage without flanges is on wheels on a circular curve, show how the effect of the centrifugal force may be counteracted by a rise of the outer rail, and find the rise of the outer rail above the inner rail should be if the radius of the circle be 1,000 feet, the velocity of the train 30 miles an hour, and the gauge of the rails 4 feet 6 inches.

8.—What is a simple pendulum? Find an expression for the period of oscillation.

9.—What do you understand by the moment of inertia of a body about a given axis of rotation?

Find the moment of inertia of a rectangular lamina about an axis perpendicular to its plane.

20.—HYDRO-MECHANICS.

1.—Distinguish between "static" and "resultant" pressure of a fluid on a surface. Find the whole pressure on the curved surface of

a smooth vertical cylinder of 1 foot diameter and 2 feet high, filled with water and closed by a heavy piston weighing 8 lbs.

2.—A rectangular lamina $ABOD$ has a weight of 10 lbs. point B and floats in water with its plane vertical and the diagonal AC in the surface; prove that the specific gravity of the lamina is three times that of the lamina.

3.—A cylindrical diving bell, 7 feet high and of a cross section of 14 square feet, is lowered until the top of the bell is 10 feet below the water surface. If the height of the barometer be 30 feet, how high will the water rise inside the bell, and how much air at atmospheric pressure will have to be introduced to keep the water from entering?

4.—A piece of iron weighing 17 grammes and a piece of sulphur balance each other when immersed in water. When immersed in a liquid of density 0.9, a weight of 1.4 grammes must be added to the lead to maintain equilibrium. Find the weight of the sulphur.

5.—Show that the product of the pressure and volume of a gas is proportional to the absolute temperature.

6.—An air sphere of 30 centimetres diameter is compressed into a sphere of 15 centimetres diameter, and the temperature is raised from 10°C to 15°C . Compare the pressures of the air in the two spheres, and also compare the pressures on the surfaces of the two globes.

7.—At the gate of a branch canal the bed of the branch is 1 foot below that of the main canal. The depth of canal supply is 10 feet, that of the branch supply is $8\frac{1}{2}$ feet. The coefficient for the branch is 0.75 and its width is 9 feet. Find the discharge through the branch lifted above the sill.

8.—A bridge pier is to be placed across a river,



the cross section of which at highest flood is as shown. The mean velocity of the river has been found by floats to be 1 foot per second, and its bed is of a nature not to be eroded by a mean velocity of 6 feet per second. How much of the waterway may be obstructed by the pier?

creating more safe mean velocity, supposing the current flows towards the dam. Find the approximate mean velocity which would be obtained by bridging a 200 ft. span.

8.—An irrigation channel with slopes of 1 to 1 to discharge 350 cfs per second with a fall of 1 in 3,000 and a velocity of 8 ft. per second. Find the depth and the bottom width.

No. 82.—GEOMETRICAL CONSTRUCTIONS

1.—If two parabolas have a common focus and have their vertices on opposite sides of the focus, they will intersect at right angles.

2.—Show by drawing a tangent through the extremity of the minor axis of an ellipse that the semi-axis major is a mean proportional between the distance from the centre to the focus, and the distance from the focus to the directrix.

3.—Show how to cut a parabola from a right angle.

4.—PQ is a tangent to a parabola and a circle described on the latus rectum as diameter, prove that SP and SQ make equal angles with the axis.

5.—P is a point on a parabola, which is the focus and is the vertex. The normal at P meets the axis in G, and the directrix the axis produced in X, Q is the middle point of SG. Prove that—

$$QX^2 - QP^2 = 4AS^2.$$

6.—If the ordinate of a point P on a parabola bisect the subnormal at another point P', show that the ordinate of P is equal to the normal at P'.

HIGHER PURE MATHEMATICS.

No. 14.—CO-ORDINATE GEOMETRY

1.—Find the equation of a straight line—

(a). In terms of the intercepts on the axes.

(b). In terms of the perpendicular from the origin and the inclination.

(c). Referred to oblique axes.

(d). In polar co-ordinates.

2.—Show analytically that the point of intersection of the ellipse bisects the angle between the focal distances of that point.

3.—Find the equation to the straight line joining the centres of two circles whose equations are

$$x^2 + y^2 + 16x - 12 = 0 \text{ and } x^2 + y^2 + 10y - 144 = 0,$$

and determine whether the circles intersect or not.

4.—If two equal parabolas have the same focus and their axes perpendicular to each other, they intersect in four points. The length is $8a$, the breadth is $2a\sqrt{2}$, where $4a$ is the latus rectum of the parabola.

5.—A and A' are the extremities of the major axis of an ellipse, B is the point on the ellipse tangent at B to the line AA' produced, through T a straight line is drawn at right angles to AA' and meeting AP and A'P produced at Q and R respectively. Show that QT = RT.

6.—Find the equation to the ellipse which has the point $(-1, 1)$ for focus, the line $4x - 3y = 0$ for directrix, and whose eccentricity is $\frac{1}{2}$.

NO. 27.—DIFFERENTIAL CALCULUS.

1.—Differentiate—

(i) $y = \log \{ \log (a + bx^2) \}$

(ii) $y = \frac{\sqrt{a+x}}{\sqrt{a} + \sqrt{a+x}}$

(iii) $y = \tan a^{\frac{1}{x}}$

2.—Expand $e^{\tan^{-1}x}$ to five finite terms.

3.—Find the fraction which increases its second power by the greatest possible quantity.

4.—A high vertical wall is to be braced by a beam which passes over a parallel wall a feet high and b feet distant from the other. Find the length of the shortest beam that can be used in the position.

5.—Find the asymptotes of the following curves.—

(i) $x^2 - y^2 - a^2xy = 0$.

(ii) $x^2 + y^2 = a^2$.

6.—Find the radius of curvature of the curve $y = x^3 + 3x^2 + 6x$ at the origin.

At what point is the radius of curvature infinite?

7.—Trace the curve

$$y^2 (x^2 + a^2) = x^2 (x^2 - a^2)$$

Find the ordinates, determine the angles at which the curve cuts the axis of x .

EXERCISES IN INTEGRAL CALCULUS.

1.—Integrate—

(i) $\int \sqrt{a^2 - x^2} \, dx.$

(ii) $\int \frac{\sqrt{a^2 - x^2}}{x} \, dx.$

(iii) $\int \frac{x \, dx}{(a^2 + x^2)(x^2 + b^2)}.$

(iv) $\int \frac{1}{\cos^2 \theta} \, d\theta.$

(v) $\int \frac{x \, dx}{x - \sqrt{a^2 - x^2}}.$

2.—Find the length of a quadrant of the circle

$$\left(\frac{x}{a}\right)^2 + \left(\frac{y}{b}\right)^2 = 1.$$

3.—Find the centre of gravity of a paraboloid of which the radii of the top and bottom are 3 inches and 7 inches, and the length of the axis 4 inches.

4.—Find the volume of the closed portion of the solid generated by the revolution of the curve—

$$(y^2 - b^2)^2 = a^2 x \text{ round the axis of } y.$$

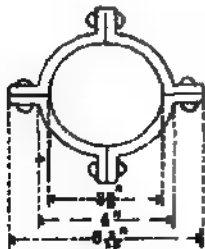
5.—Find the area of the loop of the curve $16 a^2 y^2 = b^2 x^2 (a^2 - 2ax).$

APPLIED MECHANICS.

EXERCISE 3.—DIRECT STRESS.

1.—Why is it a more complicated problem to calculate the stress in a given piece of material than to calculate the weight of a given piece of material?

2.—Find the safe working load of a rolled iron segment-column 10 feet high, of the following sectional dimensions figured in the margin, supposing it to be fixed at one end and free at the other.



Safe working stress 8 tons per square inch.

3.—Under what circumstances would you consider the above pillar as a column? What would be its strength of fixation, and compare the strength of the pillar with that of one of the same material, length, state of fixation, and sectional area but of solid circular form?

4.—Of the two methods of finding the stresses in the bars of a Truss described in the text-book the Resolution and Polygonal methods respectively, which in which respects the latter is preferable.

5.—Find by a single stress-diagram (i.e., by combining the horizontal and vertical components at each joint) the stresses in the bars of the following roof truss. Each rafter is braced by two struts; the rafters and tie-rod (which is horizontal) being braced by the bracing, the points of intersection of the tie-rod are tied to the apex of the truss. The load is applied to the rafters at the joints only, the tie-rod carries a load of 5,000 lbs. at the two points of intersection.

Span = 40 feet Rise = $\frac{1}{2}$ span.

Total vertical load of roofing on one rafter = 37,500 lbs.

Total normal wind pressure = 11,250 lbs.

Scale for stress-diagram 8,000 lbs. = 1 inch.

6.—Design the rafter and tie-rod of the above truss.

Allowable crushing strength of wrought-iron = 8 tons per square inch.

" tensile " " " = 7 " "

No. 10. DESIGN AND CALCULATION OF STRUCTURES.

2nd year students omit Questions 2 and 3.

1st year " " " 7 and 9

1.—Design the scantling of all beams to support a flat roof weighing 15 lbs per square foot, the beams being 8 feet apart from centre to centre and of 12 feet span. The weight of the beams is to be considered. All weights 55 lbs. per cubic foot.

Take $p_s = 800$, $e = 8$, $d = 5 \sqrt{3}$.

2.—Draw the Bending Moment and Shearing Force diagrams for a supported beam 36 feet span under a load which is uniform and of $2\frac{1}{2}$ tons per foot run from the left support to a distance of 12 feet from that support, and which is uniform and of $\frac{1}{2}$ ton per foot run for the rest of the span.

3.—Calculate the Bending Moment and Shearing Force at every 5 feet of the above beam.

- 4.—A rolled iron beam of I-section, of which the figure shows the dimensions in inches, is to be used as a cantilever projecting 10 feet horizontally from the support. What concentrated load can it safely bear at its free end, taking the safe working stress of wrought-iron in compression to be 8 tons per square inch.



- 5.—Explain the principles of three methods by which large wrought-iron girders may be designed.
- 6.—In a project a stream necessary a bridge of 100 feet. The roadway is to be 30 feet wide and is to be carried on two wrought-iron plate girders, the heaviest load likely to occur being 1 ton per foot run of road and 120 lbs. per square foot of live load. Design as far as you can a suitable form of girder.

- 7.—The figure represents a dam wall at Poona. It is of rubble of 150 lbs. per cubic foot. The total vertical height is 100 feet, thickness at base 60 feet 9 inches, at top 10 feet 9 inches. The face of slopes 5 feet in 100 feet, and the face of 42 feet in 100 feet. Its foundation is 7 feet deep, but assumes that the water pressure against the entire height. Compare (i) the moment of stability of the wall, and (ii) the maximum pressure on the foundations, according as the water is made to press against the face ab or against the face cd.

- 8.—Explain the application of the equilibrium polygon to the problem of enquiring into the stability of a given arch ring, and show that this polygon is actually a Bending Moment diagram.

THE ENGINEERING.

4.—MATERIALS AND CONSTRUCTION.

- Engineer Class, 2nd year, to omit Questions 2 and 7
Upper Subordinate Class to omit Question 12.

- 1.—In opening a quarry, why should the surface stone be rejected? What natural features will indicate the stone can be quarried?

by wedges? Define "the line of least resistance," and how should the blasting charge be proportioned to this line?

3.—Why ~~is~~ ~~pure~~ ~~lime~~ ~~mortar~~ make a good ~~mortar~~? ~~What~~ ~~is~~ usually added to ~~it~~ in India to form mortar? Name ~~the~~ ~~kind~~ ~~of~~ ~~material~~ used in Upper India for the ~~purpose~~ of building mortar, and state why it is so suitable for this purpose.

3.—What is the essential quality of a good foundation? How would you ensure this result in a building whose walls are of varying heights? ~~What~~ ~~is~~ ~~the~~ ~~preferred~~ ~~shape~~ ~~of~~ ~~foundations~~, and if they are, state why.

4.—What should be the minimum thickness, at ~~the~~ ~~ends~~, of an arch having a span of ~~40~~ feet and rise ~~of~~ 5 feet? Name and sketch the bond you would use in constructing it. Why should the string courses of an oblique ~~arch~~ not run parallel to the faces of its abutments? State and ~~show~~ by a sketch of ~~the~~ intrados how they should be ~~placed~~.

5.—Give a skeleton ~~drawing~~ of a single king-post truss. Name ~~the~~ ~~various~~ ~~parts~~, ~~and~~ ~~state~~ ~~what~~ ~~is~~ ~~subjected~~ ~~to~~, and ~~give~~ ~~sketches~~ of the joints.

6.—What are the two chief points to be attended to in designing the centering of an arch? Give a skeleton sketch of a ~~centering~~ centre for a span of 40 feet without intermediate supports.

7.—What is a fished joint, and a scarf? ~~What~~ ~~should~~ ~~each~~ ~~be~~ ~~used~~? Give a sketch of the best description of scarf you know to resist transverse strain, using only one fish-plate.

8.—Given the cross section of a road as below, fill in the remaining ~~part~~ of this field-book, ~~and~~ ~~calculate~~ ~~the~~ ~~area~~ ~~of~~ ~~permanent~~ ~~and~~ ~~temporary~~ ~~land~~ respectively to be taken up, ~~and~~ ~~show~~ ~~the~~ ~~results~~ ~~on~~ ~~the~~ ~~page~~ ~~are~~ ~~given~~ ~~apart~~, and that the soil ~~between~~ the drains and borrow pits, both ~~two~~ ~~feet~~ ~~deep~~, will just suffice for the embankment.

Height of centre peg.	Each side width.	Each borrow pit.	Width of Road.		Height of centre peg.	Each side width.	Each borrow pit.	Width of Road.	
			Perman- ent.	Tempo- rary.				Perman- ent.	Tempo- rary.
000					300				
125					225				
250					150				
375					000				

Cross Section.



9.—How would the earthen dam of a reservoir be protected against filtration, percolation, and wave-wash, and why? Illustrate your answer by sketching.

10.—What is the minimum height of a retaining wall and a dam? A rectangular retaining wall is 10 feet high, the earth is flush with the top and horizontal, angle of repose 30° , weight of masonry 140 lbs. per cubic foot, what should the thickness be just to resist the pressure?

No. 11.—SPECIAL CONSTRUCTION.

—Engineer Class to do Questions 5 to 12

Upper Subordinate Class to do Questions 1 to 4.

1.—Describe how you would set the work to put a roof on a building 20 feet clear span, with the following materials—

Logs 15 feet long, 10 inches diameter.

Round 1 inch diameter. 4" \times 4".

Materials for concrete. 1 inch 1 foot square.

And all carpenter's and smith's tools

Make a rough hand sketch, about 2 feet \times 1 inch, of a roof of roof illustrate your description.

2.—Make a sketch showing section through a verandah roof, roughly 2 feet \times 1 inch—

Foundations, concrete, 6 inches thick.

Bottom of concrete 6 inches below ground level.

11 inch wall, brickwork, 1 1/2 bricks thick

Outer wall (1 foot above ground level) brickwork for pillars rest on, 1 1/2 inch bases.

Stone pillars bases. Height of pith 1 inch ground

_____ verandah, _____ on concrete.

Roof supported _____ collar _____ trusses carrying purkin, pole-plate (at outer foot _____ truss) _____ rafters, covered with battens and _____ Allahabad tiles.

Principal _____ truss, $8\frac{1}{2}'' \times 2\frac{1}{2}''$.

_____ on ridge of truss, $7\frac{1}{2}'' \times 5''$.

_____ rafters, $5\frac{1}{2}'' \times 8\frac{1}{2}''$.

_____ between pillars, _____ $4''$.

Tie-rod, $\frac{1}{2}''$ diameter.

Height _____ pillar from floor to bottom of _____ 8 _____

Slope of roof _____

_____ section of clerestory window in main wall _____ verandah _____ on _____ dimensions given and such others as _____ a working drawing.

3.—Give a general narrative account of the method employed for the maintenance and repairs of a _____ road, say _____ miles long, i.e., give usual size of _____ of _____ method of stone collection for _____ petty repairs, &c., &c., consolidation, &c., &c.

4.—Make a hand sketch showing the section of a _____ side road, to _____ and half in embankment. Slope of _____ $\frac{1}{2}$. _____ feet wide including inside drain and parapet wall.

5.—A _____ $1\frac{1}{2}$ miles wide (mostly dry during _____ season); _____ employed for bridging this—the waterway being reduced to _____ whole width. Illustrate, by means of a sketch, and give your reasons _____ employing the various embankments, dams, &c., _____

6.—In the case of large railway bridges with foundations in sand, _____ foundation and protection to same would you employ—

(i). If _____ have deep foundations?

(ii). " " " shallow " "

7.—You are in charge of a road in which there is a _____ bridge some 200 _____ long with 20 feet spans. _____ foundations of _____ piers _____ below _____ level _____ stream _____ sand. The _____ has a _____ clay _____ thick, commencing _____ below _____ of the central piers has sunk 6 inches, badly cracking _____ arches on each side. What steps would you take to repair the bridge and prevent further damages _____?

8.—What are the different **materials** of **ballast** used for ballast on the formation **of** railways? Why is ballast employed? How **is** it laid, and what precautions should be observed in laying **the** formation **ballast**?

1.—Describe, by **means** of a rough sketch, **the** various parts **of** a railway point **in** switching a **train** from one **set** of rails **to** another.

Also draw a rough plan showing the shape **of** a **set** of points and **showing** to **show** a double line **of** rails **to** **show** **of** **from** a double **line** **in** **an** angle of about 35°.

2.—Describe generally the construction and characteristics of Inundation Canals. What improvements are they generally open to? **What** are **the** usual **drawings** **to** be **drawn** at their **heads** and **how** **maintained**? **What** **are** **the** advantages **and** disadvantages **of** **these** **canals**? **Where** **are** they placed, and for what reasons?

11.—Name the three principal ways in which drainage of the **surrounding** country is dealt with in **the** construction of large canals, such as the Ganges Canal. Describe one of them **in** general detail.

13.—Name the four **operations** connected with an irrigation delta project. Give **a** general **idea** **of** the method of procedure **in** designing a delta scheme.

NO. 25.—ESTIMATING.

SPECIFICATION.

Give **the** quantities of the various sub-heads shown in the Abstract **in** **the** order of their numbers. The whole of **the** doors, windows **and** **other** openings **are** **to** be **deducted** in full from **the** superstructure **quantities**.

1.—*Excavation of Foundations.*—The trench will **be** of the same width as **the** concrete **foundations**.

2.—*Concrete Foundations.*—To **be** taken **out** according **to** **the** plan.

3.—*Pucka Foundations.*—*Plinth.*—To **be** taken out **according** **to** **the** plan. **Height** **1½** **feet** **high**.

4.—*Superstructure.*—Portions of the plan before you **are** **to** **be** that **parts** **intended** **to** **be** **pucka**, **the** remainder of **the** superstructure **is** **of** **kucha-pucka** masonry. Ignore **the** **whole** superstructure in one **lot** **as** **pucka**.

All arches are semicircular, and the springing line is 11' above the plinth.

Diaphragm walls are rectangular in section 14' x 14'.

Diaphragm walls are projections.

5.—Roofing.—Take the area in superficial feet, the roof being made of parapets.

6.—Flooring.—This comprises the area of all rooms, plus ways (less 3 inches wide for each sill), plus veranda openings to outer edge of plinth.

7.—Doors and Windows.—These are included in the area of openings in the walls, which include the area of chokuts.

8.—Cornice.—Take the area in running feet.

Abstract.

1. C. ft. Excavation of foundations, ...	@	Ra. -18/- per cu. yd. =
2. " Concrete foundations, ...	"	10/- " =
3. " Pucca masonry ... and plinth, ...	"	20/- " =
4. " Pucca masonry superstructure, ...	"	24/- " =
5. S. ft. Roofing arched, including centering, ...	"	35/- " =
6. " Flooring, ...	"	12/- " =
7. " Doors and Windows, ...	"	1/8 per sq. ft. =
8. R. ft. Cornice, ...	"	22/- " =
Contingencies, ... 5 per cent.		

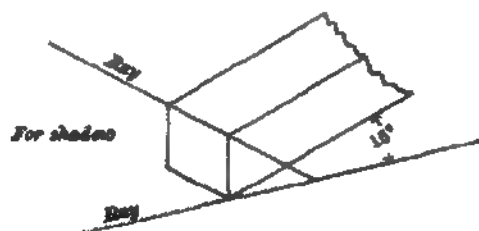
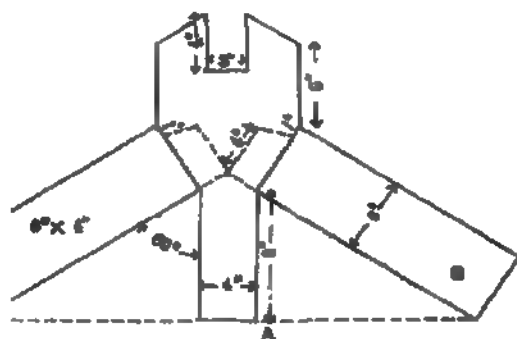
No. 24.—MECHANISM.

1.—A pump 10 inches diameter and 15 inches long, acting, by means of a piston, driven making 30 revolutions per minute. Find the tons of water delivered per hour if the pump is three quarters full each stroke.

2.—Water is rushing out of a tank through a rivet hole having a square inch area, at a velocity of 20 feet per second. How many gallons of water per hour?

3.—Make a list of the names of the various kinds of power lifting will be (3), and (5) respectively.

FIG 2.
PLAN.



4.—Sketch the arrangement of change wheels on a lathe for cutting (1) a right hand screw, (2) a left hand screw.

5.—Can you point out any peculiarity in the motion of the connecting rod in an ordinary steam engine?

6.—Sketch some of the common methods of making longitudinal seams.

7.—How many studs 1 inch diameter are required for a cylinder cover 36 inch diameter, the pressure being 100 lbs. per square inch? The number of studs is not to exceed 3,000 lbs.

8.—Make a sketch of a ratchet wheel which may be used to drive a screw in either direction.

9.—If a shaft 3 inches diameter will transmit 20 H.-P. at 100 revolutions per minute, what diameter of shaft will transmit 16 H.-P. at 110 revolutions per minute?

10.—Make a sketch of a fly press and describe the construction and action of the same, using figures of reference. Show the purposes for which it may be used. Mention any modification of construction suitable for different purposes.

Nos 33 and 34.—DRAWING.

Engineer and Upper Subordinate Class, 2nd year, to do Nos. 1 and 2

" " " " 1st " " " " " "

Lower Subordinate Class, 2nd year, to do No. 4.

1.—A pipe goes through an inclined plane as shown in sketch, Fig 1. Draw the plan showing intersection of surface of slope with the pipe, and a front elevation of the pipe.

Scale, 3 in. = 1 inch.

2.—Make a perspective colored drawing in isometrical projection of a king-head, showing joining of the principal rafters, as given in plan, Fig 2. Corner A to the front, and rafter B moved out 2 inches to the right and mortised.

Scale—4 in. to 1 inch

3.—Students to put in shadow, (1/2 of light as given in sketch).

4.—A hexagonal prism, 4 inches long and 1/2 inch wide, rests on one

edge of an end on the **horizontal** plane and axis of prism at angles of 30° and 45° (right) on the horizontal and vertical planes of projection respectively. **Draw** the projection of the prism on both planes of projection, **showing** the elevation on the right, on a vertical plane at right angles to the vertical plane of projection, and bisecting the axis of prism.

4.—Make a colored tracing of the section of a verandah given you.

Note.—For a complete tracing, **showing** will be allowed for **drawing** and **coloring**.

No. 5.—SURVEYING.

Engineer Class, 2nd year, to do questions 5, 6, 7, 8, 9

3, 4, 5, 6, 7

Upper Subordinate Class, 2nd and 1st year, to do questions 1, 2, 3, 4, 5

1.—What is the object of a vernier, and what of a comparative scale?

Construct a scale of 5 miles to $\frac{1}{2}$ inch, to read miles in furlongs, and a comparative scale of Russian versts. (1 verst = 1168.68 yards).

2.—Give the permanent adjustments of the Y-level, with brief explanations.

3.—In order to open it up with roads and canals, you are to survey the valley of Kashmir, with the mountains enclosing the valley. The valley is generally level, much watered, with few roads. Lower slopes of hills undulating and wooded, mountains above abrupt, rugged with well marked peaks.

There are a good many well marked features in the valley.

Give a list of the instruments, &c, you require for the survey, **showing** the class of work for which they are required.

4.—State what parts of the survey (in 3) require great accuracy and what general measurements only. What errors are you guard against, and how would you make?

5.—What are bench-marks, how are they selected, how marked, and how used?

How can you eliminate cumulative errors in a long line of levels?

6.—The following are the inward angles in a traverse, and the distances measured —

Angles	A — 15°	BC — 5161
"	B — $73^{\circ} 50'$	"
"	C — $98^{\circ} 28'$	CD — 5230
"	D — $127^{\circ} 20'$	"
"	E — 32°	DE — 4920
"	F — $71^{\circ} 37'$	"

bearing of AB = 15° .

traverse table, and apportion the angles.

7.—Plot a road descending from A to B on the assumed horizontal plane having a slope not exceeding $\frac{1}{4}$.

8.—A of deviation is required on a railway to avoid a building. How is it laid out, and what checks do you apply?

9.—Explain the difference between a solar and a sidereal day; and between sidereal and mean time.

How can the longitude of a place be deduced from the of the moon in Right Ascension, and the of moon-culminating

No. 22.—EXPERIMENTAL SCIENCE.

2nd year — answer question 2.

" " " questions 10, 11, 12.

1.—Show how the opposing forces of cohesion and adhesion determine the conditions of matter—solid, liquid and gas. A gas expands in volume when cooled, is this in all analogous with the same fact in liquids and solids?

2.—Describe an experiment which shows that liquids, on solidifying, evolve heat. Why is it difficult to show this in the case of water?

3.—What is a crystal, and by what processes may substances be generally crystallised?

4.—Describe the laboratory preparation of hydric sulphide, its properties, the basic which is precipitated by it in hydric chloride, and describe the nature of the precipitate so formed.

* Not represented

6.—Give the chief properties of _____ and of five of its useful alloys _____ other metals, stating roughly the proportions of the _____ forming the alloys.

6.—A calorimeter weighing 150 gm., and _____ of _____ specific heat 0.056, contains 350 gm. of _____ at 20°. If 10 gm. of _____ at 100° is passed _____ water, _____ will be _____ temperature, _____ ing no heat to be lost or gained?

7.—How are the following _____ obtained —Hydrochloric, Hydrocyanic, and Hydrofluoric, and how _____ of _____ will be obtained from 800 gm. of the material from which each is made?

8.—Give a _____ of the elements _____ and Silicon, and the compounds they _____ with _____ and fluorine.

9.—Describe _____ ores of iron, and mention _____ the _____ in production and composition between the principal _____ of _____ steel, giving in detail the process of _____ of _____ into wrought-iron.

10.—Distinguish between the _____ Horse-Power and the Brake Horse-Power of a steam engine, and describe generally the _____ by _____ may be ascertained.

11.—Define the following —Dew-point, complementary colour, chromatic aberration, _____ lens, coercive force in a magnetic substance, electrostatic force, electro-chemical equivalent.

12.—What conditions are necessary to the efficiency of a lightning conductor as regards (a) the point, (b) the sectional area, (c) the material, (d) the mounting plate? What might you expect to find in a conductor which you are ordered to inspect after it has been neglected for several years?

UPPER SUBORDINATE CLASS.

ARITHMETIC,	---	..	...	...	...
GEOMETRY,	---	...	...	...	...
TRIGONOMETRY,	---	...	...	...	...
MENSURATION,	...	...	...	...	...
MATERIALS AND CONSTRUCTION,	..	...	...	...	...
SPECIAL CONSTRUCTION,	...	...	...	...	...
ESTIMATING,	...	...	...	...	...
MECHANISM,	...	...	...	...	...
SURVEYING,	...	...	...	...	...
DRAWING, ...	---	...	...	...	...

of Engineer
Class.

No. 2.—ALGEBRA.

1.—Multiply—

$$x^2 - 4x^2 + 11x - 24 \text{ by } x^2 + \square + \square$$

2.—Divide—

$$x^2 + y^2 + 3xy - 1 \text{ by } x + y - 1.$$

3.—Find the G. O. M. of—

$$6x^2 - 4x^2 - 11x^2 - 3x^2 - 3x - 1$$

and

$$4x^2 + 2x^2 - 13x^2 + 2x - 5$$

4.—Find \square square root of—

$$(1). \quad 25x^2 - 30x^2 + 49x^2x^2 - 24x^2x + 16x^2.$$

$$(11). \quad 16 + 5\sqrt{7}$$

5.—Simplify—

$$\frac{a+b}{(b-a)(a-a)} + \frac{b+a}{(a-a)(a-b)} + \frac{a+a}{(a-b)(b-a)}.$$

6.—Solve \square equation—

$$\frac{a+b}{a+4} - \frac{a-6}{a-7} = \frac{a-4}{a-5} - \frac{a-\square}{a-16}.$$

1.—A man bought a horse expecting to sell it again at a price that would have given him 10 per cent. profit on his purchase; but he had to sell it for 10 per cent. less than he expected, and he lost £100 on the horse. How much did he pay for the horse?

2.—A certain sum of money is to be divided among 4 men; if 3 men were taken away each man would have £150 more, and if 2 men were taken away each man would have £200 more. Find the sum of money and the number of men.

3.—Solve the equations—

(1). $x^2 + y^2 = 14$.

(2). $x^2 - y^2 - 3x = 0$.

4.—A and B are two stations 300 miles apart. Two trains start simultaneously from A and B, each in the opposite direction. The train from A reaches B 1 hour, the train from B reaches A 1 hour after they meet. Find the time at which each train travels.

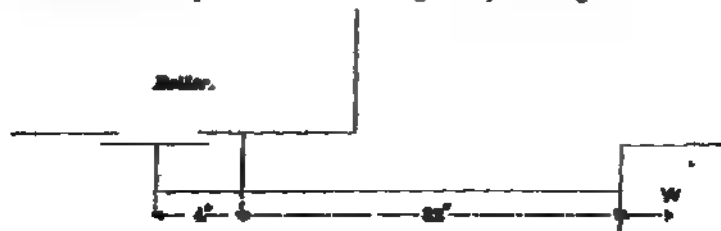
No. 2.—APPLIED MECHANICS.

1.—The length of an inclined plane is 15 feet, the perpendicular height is 5 feet. What power will be required to sustain a weight of 1 cwt?

2.—If the distance between the threads of a screw is $\frac{1}{2}$ inch, and a force of 10 lbs is applied to the end of a lever 3 feet in length, what weight will be moved by the screw?

3.—In a wheel and axle the barrel is 2 inches diameter, the rope is $1\frac{1}{2}$ inches diameter, the crank handle is 14 inches radius, and the weight to be raised is 100 lbs. What is the force applied to the handle, adding 10 per cent. friction?

4.—What is the pressure on this arrangement, W being = 63 lbs.

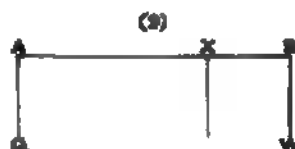
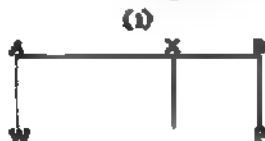


5.—Three figures represent cranes of the same class in different positions. Give the relative strength.



6.—A punching machine is so arranged that 10 holes can be punched in 1 minute through a plate $\frac{1}{2}$ inch thick. The pressure required is 20 tons, and the pressure is uniform. Find how much work is performed by the machine in one minute and the horse-power required.

7.—Let AX be the long arm of a beam, and XB the short arm. A weight W placed at A is balanced by 336 lbs. = P placed at B , when W is placed at B it is balanced by 112 lbs. = Q placed at A ; what is the weight of W ?



8.—A tank is 8 inches \times 2 feet 6 inches and contains 1,000 gallons of water: what is its height?

ANNUAL REPORT, 1896

THE SECRETARY TO GOVERNMENT,

H.-W. PROVINCES AND OUDH,

EDUCATIONAL DEPARTMENT.

Benares, 31st March, 1897.

Sir,—I have the honor to acknowledge the Annual Report of the working of Thomason Engineering College.

2. **Re-organization**—The students now leaving the College have had the advantage of only two years' professional education, but it is satisfactory to be able to state that practically all of them for the re-organization have been passed by the Committee and received the sanction of Government, all the new Classes will have been started in November, 1898, just 50 years since this College was founded.

Although the rules, system of instruction and general arrangements of the Classes have been fixed, and the accommodation in the College building provided, a good deal yet remains to be done before the students can be fully instructed. Neither of the schemes sanctioned by the Secretary of State has as yet reported on in this country, and the construction of the College Workshops and Laboratories is still required. The plans for all the works have been submitted in detail, with the exception of the plans for the Workshops.

It may be noted that the Benares and Midnapur Colleges have been equipped recently by Government in a most liberal spirit. The apparatus for the various branches of training, and the Poona College of Science enjoyed these advantages for a considerable period.

3. **Committee of Management**—The Committee held three Meetings during the year under review, viz., on the 1st June, 1896, at Benares, and on the 1st December, 1896, at Allahabad.

CHANGES IN THE STAFF OF THE COLLEGE—

Engineer Staff.

Lieutenant H. L. Oresthwaite, R.E., Assistant Principal, himself took a year's furlough. Medical certificate from 24th October, 1896, his duties were placed at disposal of the Government of India, Military Works Department, from that date.

Lieutenant R. E. Campbell, R.E., Assistant Engineer, 2nd Grade, Military Works, joined the College as Officiating Assistant Principal on the 11th of the 11th November, 1896.

Upper Subordinate Staff.

Conductor J. O'Neill, Full Assistant Master, took a furlough on the 11th October, 1896.

Mr. O. G. Sullivan, Head Master of the Thomason College, retired on the 11th November, 1896.

Captain J. H. Fairley, 1st Assistant Master, was promoted to Head Master.

Conductor J. O'Neill, 2nd Assistant Master, was promoted to 1st Assistant Master.

Sergeant C. Bolton, Overseer, 2nd Grade, and Officiating 2nd Assistant Master, was appointed permanently as 2nd Assistant Master. Sergeant Duncan and Mr. Plomer, Apprentice Overseers, were 3rd and 4th Assistant Masters, respectively, up to 15th September, 1896, their places were taken by Sergeant Gyde and Sergeant Francis, Apprentice Overseers, respectively, after that date. Sergeant Gyde, Apprentice Overseer and Assistant Master, was posted to the Military Works Department, Lebong, from 16th March, 1897, and Sergeant Francis has been permanently appointed as 3rd Assistant Master from the 1st April, 1897.

Lower Subordinate Staff.

The services of Mr. Chetan Das, temporary Assistant Master, were dispensed with on the 11th August, 1896. Mr. Das was promoted to 1st Assistant Master on the 18th October, 1896.

Mr. Latif, Assistant Master, was promoted to Survey Master in August, 1896, and Mr. Ajitha was appointed as Assistant Master on probation on the 18th October, 1896.

Dhani Ram, [redacted], resigned [redacted] appointment [redacted] June, [redacted].

Survey Classes.

Sergeant J. H. Sheppard, [redacted] Bn. Rifle Brigade, and Honorary Duffa-
Jehangir Khan, 1st Bengal Cavalry, [redacted] appointed Instructors [redacted]
[redacted] and Native Military Survey Classes, respectively.

Industrial Class.

Kadhu Singh was appointed an Instructor, Art Handiwork, [redacted]
III, on 3rd March, 1897.

Press Staff.

Sergt. [redacted] F. [redacted] was appointed Printer and [redacted] joined on
[redacted] July, 1896.

■ CASUALTIES.—There [redacted] no casualties during [redacted] year.

■ REMOVALS.—There were no removals during [redacted] year. One [redacted]
English Upper Subordinate Student, Mr. A. E. Lumsden, resigned the
Class on [redacted] June, 1896, before he had completed three [redacted] study;
[redacted] joined as an unprivileged [redacted] paying fees, and [redacted] [redacted]
attempt the competition in which [redacted] succeeded.

7. ENTRANCE EXAMINATIONS.—The details of [redacted] Entrance Examin-
[redacted] Students joining on [redacted] 1st April next, and the [redacted]
strength of [redacted] College, [redacted] shown in [redacted] following Table:—

[redacted] showing [redacted] number of College Students, &c.

	CIVIL.		MILITARY.		TOTAL.	
	English.	Native.	English.	Native.	Of each.	In total.
ENGINEERING CLASS.						
Second year Students,	9	6	..	..	15	15
First " " " " " "	18	8	..	..	18	18
Candidates examined for [redacted] ..	10	16	..	..	26	..
passed,	4	7	..	..	11	..
admitted, privileged, ..	4	7	..	..	11	..
" unprivileged, ..	1	12	..	..	13	..
Carried forward, ..	41	55	..	..	96	96

Summary of the Results of the Survey of Students, &c.—(concluded).

	CIVIL		MILITARY		TOTAL	
	English	Native	English	Native	Czech	In total
Brought forward, ..	41	55	..	..	96	96
APPRENTICESHIP CLASS						
Apprentices on Works,	4	3	9	..	13	..
Second year Students,	7	7	8	..	22	22
First year Students,	8	9	8	..	25	24*
Candidates examined for next year, ..	10	73	14	..	99	..
" passed,	8	45	14	..	66	..
" admitted, privileged, ..	6	6	19	..	24	..
" " unprivileged, ..	1	3	..	..	4	..
LOWER SUBORDINATE CLASS						
Second year Students, .. ..	..	42	..	..	42	42
First " " unprivileged, ..	..	24	..	..	24	24
Candidates examined for next year, ..	..	151	..	..	151	..
" passed, .. ..	..	39	..	..	39	..
" admitted, privileged, ..	..	40	..	..	40	..
" " unprivileged, ..	..	15	..	..	15	..
MECHANICAL APPRENTICESHIP CLASS						
First year Students, .. ..	..	9	..	..	9	9
INDUSTRIAL CLASS						
First year Students—						
Section I Printing trade, ..	..	2	..	..	2	2
" II. Photography and Photo-Mechanical work, ..	..	2	..	..	2	2†
" III Art Handwork, ..	..	2	..	..	2	2
MILITARY SURVEY						
Students, .. ..	..	..	6	10	16	16
JUNIOR CIVILIAN SURVEY CLASS						
Grand Total, ..	86	591	72	10	659	659

* One Civil English Student left.

† Will be increased to 12.

English and Native Candidates from

Division or Abode	Up for Disposition			In the District			Total of			Remarks
	English	Upper Subordinate	Lower Subordinate	English	Upper Subordinate	Lower Subordinate	Quota up	Excess	Revised est.	
N.W. Frontier and Cach, ..	302	344	1,000	173	120	515	311	134	211	446
Punjab, ..	163	416	1,367	60	100	606	37	60	300	436
Bengal, ..	66	46	1	37	9	...	34	6	...	36
Bombay, ..	6	1	...	4	...	...	3	...	...	6
Madras, ..	6	6	...	1	...	...	1	...	...	6
Central Frontier, ..	3	23	7	...	1	...	...	...	...	1
Burma, ..	2	...	...	...	...	...	...	...	...	2
Assam, ..	...	4	...	...	...	...	...	...	...	...
Central India, ..	...	2	1	...	...	...	...	...	...	...
Myittha, ..	...	6	1	...	1	...	...	...	...	...
Baluchistan, ..	...	1	4	...	...	...	...	...	...	...
North-West Frontier, ..	3	34	576	3	3	245	...	4	75	162
Coastal, ..	3	6	...	...	1	...	...	...	...	1
Madras, ..	3	...	...	...	...	...	...	...	...	...
Total	647	1,070	3,066	366	269	1,381	173	206	807	4,311
										908

The figures for passed and up for disposal for the year ending 1906 are shown in this column. The total should be compared with the quota of 4,311 to show the proper proportion.

Special Quotas are not included in this statement.

9. CONDUCT OF THE STUDENTS.—I am glad to be able to report that the conduct of the Students during the year has been all that could be desired. There was one case of anonymous petition regarding the Industrial Apprentices Class, but I would have given great care being taken regarding the moral character of the boys selected for this and the Industrial Classes from among the residents of a large city like Lucknow.

10. THE TECHNICAL TRAINING OF CIVIL ENGINEERING AND TELEGRAPH ENGINEERS has already been referred to in para. 8. The Students are trained in Ferrettype, a limited amount in Photography, and the Engineer in Chemistry with some difficulty, as there is no satisfactory working laboratory. All Students visit the Canal Foundry and are also engaged in the work being carried on there.

10. MECHANICAL APPRENTICES CLASS.—This new class was started on the 1st November, 1896, under the sanction conveyed in G.O., No. 419, dated 12th August, 1896. The Students were all selected by the Director of Public Instruction from the Industrial School, Lucknow. They are given a training in Theory and Drawing in the College, and in Practical work in the Canal Foundry under the orders of the Superintendent. The Students who have joined do so with a high standard of theoretical knowledge necessary for the study of Mechanics, and it will probably be necessary to introduce some changes in the future; the present system will, however, be given a fair trial before any change is recommended.

11. INDUSTRIAL CLASSES.—Three Classes have recently been started under the sanction contained in G.O., No. 715, dated 27th December, 1896, viz., in the Printing trade, in Photo-Mechanical Work and in Carving. The full number of Students for these Classes has not yet been determined; great care has to be exercised in making selection so that the Students may be well fitted to benefit by the special instruction given in them. These Classes will afford an opening to the most promising students of the Industrial School and will give them a more definite tendency for their pursuits.

12. SPECIAL CLASS.—A Special Class for Non-Commissioned Officers for the Mombasa-Uganda Railway was held under the sanction conveyed in the Government of India, No. 548, dated 17th February,

1896. [redacted] all previously passed through the Native Military Survey Course, were [redacted] Railway survey [redacted] levelling by [redacted] 8th May, 1896, [redacted] eight of [redacted] were despatched [redacted] Uganda, [redacted] I understand they have given satisfaction. The training [redacted] efficiently [redacted] rapidly carried out by Pandit [redacted] Prasad, [redacted] Master, Lower Subordinate Class [redacted] his Assistants, [redacted] [redacted] regular duties.

It is probable [redacted] trained in this [redacted] might be found [redacted] [redacted] the Indian Frontier Expeditions.

13. [redacted] MILITARY SURVEY CLASS.—This [redacted] [redacted] eight Non-Commissioned [redacted] joined in September, 1896, and [redacted] [redacted] [redacted] has been carried [redacted] by Sergeant Sheppard under Captain Bullen, R.E.

[redacted] Course laid down for their instruction was [redacted] as [redacted] of last year, but for [redacted] reasons the combined Hill Sketch, which is the [redacted] difficult exercise in [redacted] Course, [redacted] not completed, nor [redacted] its main object carried out, in finding and reporting [redacted] [redacted] [redacted] main [redacted] [redacted] which would be passable for troops. It is [redacted] [redacted] hoped, though, that the men have learnt from [redacted] failure [redacted] [redacted] sketch should be executed if [redacted] ever comes to be required of [redacted]

The conduct of the Class [redacted] not been quite so satisfactory [redacted] is generally in, and there have been several complaints brought by [redacted] men against [redacted] another, but there was a marked improvement [redacted] the [redacted] of the Course, and I am [redacted] [redacted] the [redacted] of the [redacted] is good, [redacted] [redacted] [redacted] [redacted] found [redacted] at their work.

14. NATIVE MILITARY SURVEY CLASS.—This [redacted] joined in [redacted] 1896, [redacted] completed [redacted] Course at the end of March.

Two [redacted] [redacted] were held during [redacted] Course—one [redacted] [redacted] [redacted] other in January—and I am glad to say [redacted] [redacted] [redacted] showed that marked improvement [redacted] been made [redacted] the interval.

[redacted] teaching [redacted] practice in contouring is found [redacted] [redacted] [redacted] this Class, [redacted] I am [redacted] the instruction given is not [redacted] good as [redacted] [redacted] of the Assistant [redacted] of the College was responsible [redacted] it.

[redacted] of a Class of [redacted] eight have obtained Higher [redacted] [redacted] Ordinary, [redacted] [redacted] in [redacted] respect [redacted] [redacted] compares favourably [redacted] [redacted] former [redacted]

The conduct of [redacted] [redacted] was good [redacted] [redacted] exception of one man

who on learning the result of the examination was subordinate to the Instructor and had to be remanded under arrest to his Regiment.

15. PHOTOGRAPHY.—The Second Year Students in all Classes have been trained in *Phototype*, and *Alto* men in Photography as below:—

Engineer Students,	..	..	.	■
Upper Subordinates,	..	—	—	■
Lower	..	—	—	■
				15

The work of the Engineer Class was fair. This class this year had more or less to devote to Photographic work in the season as they had a heavy Project to prepare. The work of the Upper Subordinates was very good, considerable difficulty was met with in awarding the prize, which was gained by Sergeant C Hayles. The work done by Sergeant J. J., Sergeant F. A. Brunning was highly commended by the Committee. The work of the Lower Subordinate was fair.

Sergeant Bolton instructed the Students until relieved by the Instructor in October, 1896, the work produced is, I consider, most creditable to the Instructor.

The Photographs Department carried on a large amount of work during the year, including Silver Bromide and Platinotype prints, Bromide enlargements and Photo-mechanical work. The Photo-Litho. Branch with the Operator, Mr. J. A. Alt, was closed on 1st January, 1897. The supervision of the work remains under the Instructor in Photography. A special report on the Department has been called for by G. O. No. ⁹⁰ XV.—1897, dated 11th March, 1897.

16. OUTSIDE EXAMINATIONS.—The statement given shows that the following gentlemen kindly assisted the Staff:—

Mr. E. A. Kendall, I.C.S., Major F. G. Bond, R.E., Major M. C. Barton, R.E., Rev. H. H. Hopper, Pandit Adityaram Bhattacharya, Sayed Amjad Ali, Lieut. G. G. Griffith, R.E., Mr. D. Bontey Robertson, and Mr. P. H. Mole.

POST FOR	1904		1905		1906	
	Candidates	Passed	Candidates	Passed	Candidates	Passed
Assistant Examiner of Accounts,	14 ¹	12	12 ²	9	10 ⁴	8
Traffic Department,	8	5	..	..	16	1
Sub-Engineer, .. .. .	..	..	3	..	1	..
Overseer, .. .. .	..	..	..	..	..	..
Promotions to Accountant, 2nd Grade,	7	6	..	..	3	..
4th Grade Accountants,	184	..	184	17 ³	150 ⁵	17 ⁷
Finance and Commerce Department,	15	8	..	..	..	..

17. REGISTERED OR EMPLOY.—The registered and provided with employment is given below —

Grade.	1904-01		1904-02		1904-03		1904-04		1904-05		1904-06		1904-07		Total
	Registered	Appointments	Registered	Appointments	Registered	Appointments	Registered	Appointments	Registered	Appointments	Registered	Appointments	Registered	Appointments	
Engineers,	11	5	2	6	9	6	10	9	38	9	12	6	16	2	2
Upper Subordinates,	27	12	27	10	16	7	24	11	10	4	13	1	11	12 ¹	
Lower,	190	65	92	57	146	83	121	110	161	100	151	123	140	121	
Draftsmen,	28	12	7	7	8	1	6	2	21	8	12	11	15	8	
Mistria,	2	5 ¹⁰	145
Total,	171	92	125	89	159	97	143	121	190	117	160	151	154	145	

Very careful made into characters qualifications before they are registered, and it is probable that we really unsatisfactory Register.

.. .. . printing of records of Candidates continued with satisfactory results.

¹ One withdrawn.

² Two withdrawn.

³ One did not appear.

⁴ One of these Candidates was examined in Book-keeping only, vide Assistant General's 211/05, dated 1st July, 1905.

⁵ Two did not appear.

⁶ Three withdrawn.

⁷ Four of these Candidates were examined in Book-keeping only.

⁸ In addition 12 men obtained appointments direct.

⁹ Some Lower Subordinates obtained appointments on the Uganda Railway as Overseers.

¹⁰ One Candidate from Sub-Overseers registered last year, two Mistria obtained temporary Sub-Overseer appointments.

Register showing Applications and Appointments of Men during 1895-97, excluding Apprenticeship.

	Railways	Military Service	N. B. Freeman and Co. Ltd.			Foreign		Local Administration							Total	Remarks	
			Forestry.	Irrigation.	Medical and Sanitary Board.	Superintendent.	Intelligence.		Muzaffargarh and District Board.	Bahawalpur.	Muzaffargarh.	Central Prov. District Board.	Central India District Board.	Muzaffargarh District Board.			
							Intelligence.	Medical and Sanitary Board.									
Engineers,	1	..	..	..	..	1	1	1	1	1	1	1	1	1	1	10	
Upper Subordinates,	26	..	1	1	..	1	1	1	1	1	1	1	1	1	1	46	
Lower "	87	11	20	21	..	24	25	2	4	2	2	2	2	2	2	166	
Draftsmen,	9	1	2	..	..	2	1	1	1	1	1	1	1	1	1	23	
Minors,	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	
Engineers,	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
Upper Subordinates,	5	..	..	1	..	1	1	1	1	1	1	1	1	1	1	12	
Lower "	25	2	12	20	..	4	10	2	2	2	2	2	2	2	2	106	
Draftsmen,	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	6	
Minors,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	

From the Register showing applications and appointments of men during 1896-97, excluding guaranteed appointments, it will be seen that there were 100 applications for 100 appointments. 100 men were available, 100 appointments might have been made. Part of the high school work is no doubt to call for supervision of labor, but only a small part, as highly skilled men are largely required on the works. The Government has all parts of India, except Hyderabad (Deccan) Coorg, and it is likely to continue, it calls for a large extension of the College Classes.

OF STUDY.—No special changes as the new year's Course, which has been sanctioned finally, will be brought into use from November, 1897. The year Lower Course was put through the new Course. It may be mentioned here that opportunity was taken at the time of revision of the Engineer three year's Course, to revise the two and one year Courses of all Classes of the College. The revision of the Manual on Bridges was completed, and it will be issued for the next Course.

10. VOLUNTARY CORPS.—The Corps was inspected by Colonel Leach, O.B., D.S.O., R.E., Commanding the Roorkee Station, on the 10th March, 1897, and was pleased to express his fair approval, the Adjutant, Captain Denny, was present. The fall number of drills were held, and the Annual Course fired with fair results.

THE CORPS was in a flourishing condition owing mainly to the careful management of Lieut Sparke.

20. SPORTS.—The Recreation Ground is in a prosperous condition, and the expenditure for the year was exactly equal to the receipts. We have still sufficient balance to buy a new boat, and we could have got one out from England.

Our Cricket has been distinctly above the average, and we have arranged more matches the Club would have found it expensive to provide presentation to every individual. In only one play there were two. We are glad to have Sergeant Bolton in the ground.

Though Hockey has started, it has, at the present, been confined to the Upper Class, who won the match they played.

The boat race was won by the 2nd year, by two lengths. The crew,

composed of Loughran, LeCun, Snee, Jones and Dady (our) also was the race last year as 1st year Students.

The Lower Subordinate Club has prospered; all the _____ play football or cricket _____ their College work allows _____ for recreation.

The result of the _____ played is given below :—

Month.	_____	1st Innings.	2nd Innings.	Total.	Remarks.
Jan 1897,—	Station, — —	78	30 (for 1 wicket).		} College won by 150 runs.
	College, — —	259	—		

21. GYMNASIUM.—This has not yet been provided on a scale sufficient for all the _____ Students. _____ a gymnasium ought to be _____ an Instructor provided; a Course being _____ compulsory _____ Students who are not Volunteers or who _____ play _____

22. CO-OPERATIVE STORES.—This institution is in a satisfactory position Rs 11,940 worth of goods were sold during _____ year. _____ Sullivan, _____ former Honorary Manager, has _____ succeeded by Capt. Farley, who _____ managed to the great advantage of the members.

_____ PRESS.—It is satisfactory to be able to report that the position of _____ Press has been materially improved this year. _____ the exception of the pressing and drying room, which will _____ moved in a month, _____ the Departments have now been collected into part of _____ the College wings, _____ are in a detached building _____ and _____ grated. _____ is only _____ door _____ the employée to _____ and _____ of, and _____ Supernumerary _____ Printer can properly _____ the workmen in _____ Press and Composing _____ recently built _____ altered by _____ Public Works Department _____ suitable and thoroughly _____ lighted. An Oil Engine _____ purchased for power working of _____ machines, and now runs _____ Lithographic registering machine, weighing nearly _____ tons, a _____ Elephant Lithographic _____ a Harbild's Cylinder type _____ Four other power _____ have _____ indentured for, _____ be fixed in working order by _____ end of _____ installation _____ improved plant will enable the _____ _____ with _____ large quantity of high class color _____ Photo-mechanical work _____ is now _____ on _____ produce, and _____ hand _____ were quite powerless _____ deal with.

The Oil Engine, Hornsby-Akroyd type, appears to be a very suitable source of power for small factories, it is easily managed, requires very little attendance, and as far as can be determined at present, the cost of running is low, probably not above two annas per H-P. per hour.

Some difficulty was met with in training the hands to run the machines; but they are now efficient, and the same supervision by the same hands will be experienced in the future.

Mr. Robey has been in charge as Superintendent during the year—he has had some difficulties to overcome in carrying on the work at the Press during the alterations to the buildings and transfer of plant. Sergeant Sheath, the Printer, has attended to the printing in a satisfactory manner.

LIBRARY.—The Library now contains 17,140 Volumes; it is in good order and in Mr. Mac's care. A new Reading room has been added—this will be a great advantage to the students.

Lower Subordinate Students are now allowed to use the Library, and their knowledge of English in this Class rendered this course more useful.

MUSEUM.—The new building, which is now used as a Reading room, will afford ample space for models for some time. A few additions have been made to the collection of minerals. Some have been promised, but there are many useful types still wanting. No additions have been made to the Museum.

The sand model referred to in last year's Report has been under experiment during the year, and the Government of India have recorded their appreciation of the results.

26. HEALTH.—The health of the students throughout the year has been good.

27. APPRENTICES OVERSEAS.—Fifteen men, including the Assistant Masters, have been posted as follows:—

Administration				Military, 1st grade	Civil, 2nd grade	Native, 3rd grade	Total
Military Works,	..	..	..	6	1	..	7
Assam,	..	..	..	1	..	..	1
N.W. Provinces, Provincial,	..	..	..	1	3	1	5
Railways,	..	..	..	3	..	..	3
Punjab,	..	..	..	..	1	1	2
Total,				11	5	2	18

* Posted to College as Assistant Master.

The General, Works, and another Overseer, but only one supplied.

Twenty passed Overseers last year obtaining the Higher certificate as Sub-Engineers. Out of the twenty who passed, ten appointed Masters, and thirteen as Apprentices. After six months two of the Apprentices brought back as Masters, and the others were in training, so that fifteen gaining guaranteed appointments have been by a practical training in works.

Of the five who have guaranteed appointments, one a Military Student, was appointed direct by the Director General, Military Department, the other four obtained other appointments.

Reports on Apprentices by Executive Engineers and all satisfactory; indeed, during the latter part of their training, the Apprentices in instances appear to have rendered substantial assistance to Divisional works on which they were being trained.

Stores and Workshops.—The grounds have been maintained in good order, and Mr. Sparks, who is in charge of the Workshops, has put them on a capital working basis. Accounts of stock, expenditure, and receipts, are carefully kept up in forms under a budget head, and a balance sheet for the year and for the future with the of the and Book Dept.

In the work done by the Shops, a saving in the supply of the sand model has been put in at an expense of the expenditure has been met by the Government of India.

The Clock presented to the College by Sir Shamesher Jung, Rana Bahadur, K.C.S.I., has been erected by the Land and Blockley and keeps good time.

29. Accounts.—The Accounts of the College were in the Department of Public Works in the Accountant General, N.-W. Provinces and from the 1st April, 1895. Some points of require yet to be arranged for, but on the whole the new system appears to work smoothly.

The work of the office this year has been heavy owing to this change in the system and the working of the details of the re-

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organization Mr. Grogan, the Superintendent, and senior members of the office have given me great assistance.

QUALIFICATION OF STUDENTS AT THE FINAL EXAMINATION.

30. The results are shown as follows in comparison with the results of previous years.

Percentage of marks gained.

Year	ENGINEER CLASS					UPPER SECONDARY CLASS					LOWER SECONDARY CLASS				
	2nd Year		1st Year			2nd Year		1st Year			2nd Year		1st Year		
	Highest Mark	No. Qualified	Average Mark	Highest Mark	No. Qualified	Average Mark	Highest Mark	No. Qualified	Average Mark	Highest Mark	No. Qualified	Average Mark	Highest Mark	No. Qualified	Average Mark
1872	89	18	61	..	..	..	..	..	..	..	..	..	..	..	..
1873	80	18	61	..	..	..	..	..	..	..	..	..	..	..	..
1874	74	19	64	73	18	58	..	..	..	..	..	..	..	..	..
1875	78	17	62	77	13	76	63	23	63	77	28	62	..	..	..
1876	70	18	60	..	10	69	75	22	60	73	28	59	..	..	..
1877	77	11	62	..	14	61	68	26	62	64	27	63	..	..	..
1878	68	14	..	13	60	63	30	43	61	61	62	..	..	..	..
1879	68	11	62	9	64	67	15	65	61	16	68	..	..	..	..
1880	..	..	..	..	..	..	..	..	..	..	71	39	61	..	..
1881	76	18	68	78	13	68	64	15	65	78	28	68	78	25	65
1882	68	8	60	68	4	67	67	16	62	63	16	68	78	28	67
1883	72	9	64	77	9	64	67	18	65	69	13	68	79	29	61
1884	71	9	60	78	9	62	69	23	68	62	28	65	..	..	..
1885	71	4	59	..	6	68	77	16	66	78	24	61	82	29	63
1886	63	9	67	68	9	64	64	30	66	68	31	68	80	45	68
1887	63	11	62	63	11	61	78	16	67	69	24	68	..	..	..
1888	79	12	64	79	10	65	60	26	61	61	25	64	..	..	..
1889	74	9	63	80	13	67	65	30	65	78	35	65	..	..	..
1890	79	12	66	..	16	67	62	39	69	69	28	69	79	37	69
1891	78	15	66	..	7	67	94	28	71	80	31	69	89	36	80
1892	77	7	69	80	12	66	80	17	69	87	24	68	86	34	69
1893	78	12	64	73	13	63	87	23	68	88	24	65	79	37	67
1894	69	19	..	75	18	60	86	24	66	65	24	71	84	48	67
1895	78	18	..	77	15	64	80	32	70	67	31	73	84	40	69
1896	75	18	63	80	18	64	90	20	78	68	31	75	81	40	67
1897	80	15	63	70	18	58	92	22	67	66	26	67	81	42	69
Total Average	76	15	62	75	12	65	84	23	68	84	26	66	80	36	68

Engineer Class, Second Year.—Of the .. of .. men, .. signed during .. year and .. failed to qualify, .. was permitted to fifteen have now qualified, gaining the Higher and the Or-

Binary Engineer's Certificate. The men are qualified for the Engineer Telegraph appointments guaranteed in the Provincial. The marks gained in the improvement in the year of the men of last year.

Mr. Hari Vidyant has gained the place being since 1886, is a practical man in being the four men the same positions they of their first year. Since, the fifth man, has worked up from the place by steady hard work.

The following were for the Project.

Sl. No.	Name.	Civil Engineering	Surveying	Drawing	Applied Mathematics	Grand Total	Order of Ranking in Class
		150	100	150	50	450	
1	Singh, M. J.	130	88	148	37	403	5
2	Loughran, J. W. B.	110	75	141	39	370	9
3	Man Prasad Vidyant,	104	65	149	36	359	1
4	Cole, F. O.	103	84	139	30	356	12
5	LaOus, E. O.	115	84	98	35	332	7
6	Jones, A. E.	88	80	120	38	326	8
7	Quibert, E. O.	100	48	104	38	330	13
8	Kuolles, W. J.	97	38	106	38	329	11
9	Dady, A. W.	90	38	124	34	326	6
10	Uday Nath Sarkar,	84	60	137	35	316	3
11	Barj Nath,	80	45	118	38	301	4
12	Devina, W.	77	67	81	38	263	14
13	Lalit Mohan Mahapatra,	68	50	96	33	247	15
14	Durga Das Banerjee,	83	42	100	18	243	10
15	Pranath Nath Mallick,	75	50	88	34	227	6

The Project this year included the Plans, Section, Report improvement of the Bhoorke-Hardwar Road, as the bridge of the Ganges Canal. The project was an independent and was a combined party in the Project. This system, though somewhat expensive and troublesome out, is advantageous to the training, the College a clear insight into the capability of each man to his theoretical training on practical work. It is satisfactory to be able to report that a large proportion of the

Projects submitted were distinctly over the average of former years. It was of course not possible in the limited time available for the preparation of the Project to examine all the required, (three large ones are crossed by the line,) but as they several of the Projects are not below the standard of usually submitted to Government.

Engineer Class, First Year—The year are not as good as usual. Of the eighteen men who joined the Examination, but one being does not complete the appointments. One man joined the Class as an unprivileged paying student. Of these I recommend Messrs. Chestney and Leonard may be allowed to rejoin as they likely benefit by the Second Year's Course.

Although the Class as a whole has not done well, some men, notably Messrs. Cole, Marr, Bhagirath and Green, have greatly improved the places they held at Entrance.

Upper Subordinate Class, Second Year.—Out of the Class of twenty men, failed to qualify at the end of the first year, but permitted to rejoin, and all have now qualified as Overseers, thirteen earning the Higher certificate of Sub-Engineer. Sergeant Evans, who heads the list, obtains the highest marks earned in 1872, except those gained by Sergeant Hart in 1891. Several other men have earned good marks, and the Projects sent in were quite up to the standard required.

I propose to retain Sergeant Evans as Assistant Master from April, but will endeavour to give him a practical training before March.

Upper Subordinate Class, First Year—Twenty-five men joined the Class, of twenty-two privileged and three unprivileged of Rs. a month each. One unprivileged Student left before he completed his months' study, but has since succeeded in passing the Entrance Examination. Twenty-four of the Class have all qualified to rejoin.

Lower Subordinate Class, Second Year.—The forty-two men of this class have all qualified as Sub-Overseers with good marks. One has thoroughly mastered the Surveying and drainage demarcation, their drawing is also good. Baba Prasad, Head Master, his Assistants deserve credit for their work.

Although the appointments are guaranteed in the Class, I am glad to see the number of men then up to the supply, and I have the employment ready for nearly every man, not including the requirements for famine work.

Subordinate Class, First Year.—The twenty-four men selected from those who passed the Entrance below forty qualifying for privileged Entrance. Each man pays Rs. 10 per mensem. It is satisfactory to be able to report that the Class worked well, and qualified for rejoining next Session. The Class is one of the most promising in Drawing we have had for some time.

The following Statement gives the religious denominations of the Staff and Students —

Class.				Christians	Muslims	Hindus	Others
Staff, ..	..	..	..	18	72	8	80
Students, ..	..	..	..	74	20	1	95
From, ..	..	..	..	6	44	47	95
Total, ..				98	154	74	226

The Report submitted does not deal with many matters of interest regarding the College which have come under the consideration of the Managing Committee and been submitted to Government in the regular Proceedings.

In conclusion, I have the pleasure of expressing my complete satisfaction in the work done by the Staff of the College. During the year we have the valuable aid of Lieut. Crosthwaite Second Assistant Principal, through whose services, under Mr. C. C. Bellamy, Second Master, Upper Subordinate Class, by superannuation, after a service of 21 years in the College.

I have the honor to submit to His Honor the Lieutenant-Governor, N.W. Provinces and Oudh, the results of the year's work.

I have the honor to be,

Sir,

Your most Obedient Servant,

J. CLIBBORN, Lieut.-Col., I.S.O.,
Principal

PROCEEDINGS AT THE CLOSE OF THE ANNUAL [REDACTED] OF THE
THOMASON CIVIL ENGINEERING COLLEGE, ROOKESS, ON
THURSDAY, [REDACTED] 25th MARCH, 1897.

The Staff of the College, the Students of the [REDACTED] Classes, and [REDACTED] English and Native Visitors, having assembled in the Large [REDACTED] of the College at 11 a.m., the Chair was taken by LIEUT.-COL. J. CLINCHAM, I.S.O., Principal, Thomason College.

[REDACTED] Principal then said—

LADIES AND GENTLEMEN,—We have again to regret the inability of His Honor the Lieutenant-Governor to take part in the Proceedings to-day. You all know the strong [REDACTED] Sir Antony MacDonnell takes in this College, but few can be so well aware as I am of the care which [REDACTED] has personally bestowed on every detail of [REDACTED] reorganisation and general working. I had hoped [REDACTED] the Hon'ble Mr Odling, President of the Managing Committee of [REDACTED] College, would have been able to take his place, but he writes [REDACTED] famine duty renders it impossible for him to preside, and he asks me instead to convey his best [REDACTED] to our out-going Students and the College generally in which he has always [REDACTED] a warm interest.

I will not trouble you, Ladies and Gentlemen, by reading the Annual Report on the College, as it is mostly confined to statistical [REDACTED] which would, I fear, be uninteresting to [REDACTED] those present, it will [REDACTED] that [REDACTED] the whole I have been able to report favourably to Government [REDACTED] progress during the year, and I hope and believe that [REDACTED] have laid the foundation of considerable advance in the future.

It is interesting to recall the phases which the education of [REDACTED] has undergone. In very early days it was purely practical, without any theory at all. It then, on the introduction of schools, became almost purely theoretical, the disadvantage of this style [REDACTED] manifested itself, [REDACTED] a practical [REDACTED] to succeed the theoretical was added; many [REDACTED] [REDACTED] [REDACTED] carrying this out economically [REDACTED]

efficiently. A few years ago a remarkable demand for the so-called "Technical" Training was felt in all parts of the world, the students equipped themselves with expensive, and in many cases it is to be feared, unmountable, apparatus, but the properly conducted system of training has, however, been carried on with perseverance, the details objected to have been removed or altered, and a more efficient system secured, and in many cases leading to a really valuable training is now given to the Students.

Mr Hari Prasad Vidyant, the first man of the Engineer Class, has distinguished himself by securing very high marks and no less than eight prizes, including hard cash amounting to Rs. 1,250. I am sure his brother Students cannot but regret he is prevented by domestic affliction from being present here to-day. Mr. Vidyant has gained his place by his mathematical attainments only, he has done well in the practical subjects, and will, I am sure, make a name for himself in the future.

Mr. Bhojay Nath Sarkar, the second man, gains the Higher Certificate as Assistant Engineer and the Kunhya Lal Gold Medal.

Loughran is third with the Higher Certificate, Mr. Snow, who passes fifth, wins the Thomson Medal awarded for the best Project of the year. This important competition produced several excellent complete Projects, the working out of which will prove of great advantage to those who took part in the competition. Snow has well earned his prize.

In the Upper Subordinate Class Sergeant Evans is the easy winner with the highest marks earned in 1872, except those gained by Sergeant Hart in 1871. He carries five prizes. Plomer is second, and Hettiger third with the Mathematical Prize. Sergeant Hayles is first in the Prize for Photography after a contest with Sergeants Evans and Brining, who both contributed an excellent set of pictures. Munshi Bishan Lal wins the Kunhya Lal's Silver Medal.

Tim is the first man in the Lower Subordinate Class, with 100 marks and two medals. Bishan Singh is only three marks behind, Puri Lal, who is third, wins the Medal for Surveying, Sunder Singh for Mathematics, Karim Baksh for Drawing, and Ferrottype.

There were no guaranteed appointments for the Class, but 42 men comprising it already had the gratification of selecting appointments for themselves from the positions available in the College Register.

In the Military Survey Classes, Lieut.-Sergeant Stonor and Ramdya Singh took first place in their respective Classes.

Volunteer Bradley was the best shot in the Company, and Volunteers Green, Hurst, and Gilbert also won prizes.

The Boat Race has been won by the second year Engineer Students, who won last year as First year Students, and Messrs. Sore, Gilbert, Hottinger and O'Leary won the Tennis and Racquet Tournaments in their respective Classes.

I will ask Capt. Bullen to call up the successful Students to receive the rewards of their labour.

After the presentation of Certificates and Prizes to the Students, the Principal delivered the following Address —

STUDENTS AND LADIES AND GENTLEMEN,—I would ask the Students who are leaving us to-day after two years' hard and successful work, to bear in mind what I have so often told their predecessors that their important life begins now, the reality of this has been very fully recognised by the Government of India in the rules for training issued for the benefit of the Students who will join the College on the 1st November, 1897. These rules* run as follows —

— You will find that Government in these rules wisely declines to accept the theoretical knowledge of a man's ability as an end sufficient proof that he is bound to put out a good and useful Engineer. Government is in addition for practical proof on out-door work that he is really able to govern himself and his fellow-workers, and to apply practically the theoretical knowledge he has acquired. The old rules no doubt were more measure aimed at the former object, but the active stimulus of competition was added.

The close of this Session is marked by many points of interest in connection with the College. The Rules and Course of Study forecasted in their Report of 1891 by the Committee on Technical Education, modified in a considerable measure by the two Reports of the Secretary of Education for India and the orders of Government, have been finally drawn up and approved of. These rules will come fully

* See Circular for 1897.

force in the November, 1897, and should materially improve the professional education of all in the College. They provide for a more comprehensive study of Science and Engineering, training in practical work, and practical in Laboratories and Workshops. The call for increased training in practical Electrical work is very strong at present—one of the leading has three Electrical Engineers in employ, and installations being proposed in all parts of India. No Engineer of the future can be considered competent who is unable to deal with ordinary Electrical questions, and I anticipate a strong demand for specially trained men in a few years, before indeed will be able to supply from the College. I may add that without efficient experimental laboratory and shop work no Student can be properly trained in this subject.

During the past year the East wing of the College has been remodelled, and the rooms in the West wing are approaching completion. This enabled us to consolidate and improve in many ways the position of the College Press, will give proper accommodation for increase in Classes due to the reorganization.

An exposure for Photo-Mechanical Process work has also been built, and very considerable progress made in this art, which is likely to lead to further developments.

A simple, yet it is hoped effective, Water-supply project for the College has been sanctioned, the work is well in hand, when completed this supply of pure water will be a great boon.

Four Classes have been started, viz., the Mechanical Apprentices Class, who receive their mechanical training under the of the Superintendent of the Canal Foundry, and three Industrial Classes. The latter have been started on a modest basis, but they prosper, their introduction may lead to a development of industry in the North-Western Provinces, and thus supply a much felt want. Two of these Classes are intended for the training of well-educated Natives of scientific tendencies.

One important matter remains to be noticed. The rules of the College disqualify for guaranteed appointments European who are not statutory natives of India, under the new rules, by paying a fee, very small compared with those usually demanded in England, Europeans and Natives of any descent can join the College within moderate

restrictions qualify themselves for employment in Profession generally. *

advantage been granted to the other who Entrance Examinations below those privileged Entrance, and I find that this advantage is thoroughly appreciated, more candidates have applied for admission under those rules than College possibly contain, or the present deal with.

I am glad also be able to inform you that the demand from this College by outside employers has been well maintained I think this statement is fully substantiated by the fact that I have unable all up of the appointments offered this year I may comparatively few of these for famine works, the demand for survey and works from parts of India and from Africa, and indeed on occasion I was asked by a high German official if I could supply that portion of Africa which is under German influence.

I will conclude by offering my warmest thanks to the Staff of the College for their most help, and to the Students for their excellent conduct during the year, which has rendered my administration very pleasant. We have on this occasion to regret the absence from midst of Lieut Crosthwait, R.E., who had to return to England on account of ill health, and of Mr Sullivan, late Head Master, through whose care than per cent. of the Upper Subordinates serving in India have passed

COL. LEACH, C.B., D.S.O., R.E., *Commanding the Station, having been asked to address the Students, said —*

LADIES GENTLEMEN, STUDENTS IN INDIAN COLLEGE.—I have been asked to say a few words before the conclusion of Proceedings to-day, which is my apology for trespassing on your patience.

Every body who is interested in the College must be very pleased Colonel Chibborn's report progress made during past I am sure I am only expressing feelings of all of us visitors in congratulating him and his their success

you who are leaving the College I can only say you have great in front you, in the of which every

sooner or later be sure to get an opportunity of showing what is worth, and that is a good man need wish for.

As through life one meets a number of disappointed who say they had their chance and they see no likelihood of getting it, but more often than you may pretty much see has as much in the chances but in something wanting in themselves.

A zealous man with a proper spirit and feeling of loyalty in his superior is pretty much in the way.

You will not doubt be left in independent charge of difficult questions to deal with, and have to act on your judgment, your will entirely depend on how you apply what you have learnt here, and in this respect you may, I know, feel quite confident being fully equipped.

One word of advice to you—keep up your interest in, and take part in, all out-door amusements whenever you get the opportunity.

It will only bring you in touch with other men outside your own of life, which is always a good thing, but also keep you in good health and activity, and a healthy active man, even if a genius, is worth a lot in any capacity.

To you Military Students, in whom I am of course specially interested, I say—some of you are now taking up civil work, but never forget that you are Soldiers before everything. All that you have learnt in your regiments, discipline, the necessity for sobriety, habits of punctuality, looking up to and loyally carrying out the orders of your superiors, stand you in good stead now.

These, though they seem to be ordinary every-day virtues, are more than most men would think, and a superior man never neglects them, which means your promotion.

There is another Class here whose value I can testify from my own personal knowledge, and that is the Military Survey Class—these are always thoroughly trained, and have many proved themselves of great value.

In conclusion, let me remind those of you who are in the College that it is a tough job, but you will pay you in the end. I am bound to say that I am very glad it is you who have to tackle it and not I.

FINAL EXAMINATION, SESSION 1904-07.

LIST OF SUBJECTS AND EXAMINERS.

1 Engineer Class, 2nd year.

2 Upper Subordinate Class, 2nd year.

3 Lower Subordinate Class, 2nd year.

4 Engineer Class, 1st year.

5 Upper Subordinate Class, 1st year.

6 Lower Subordinate Class, 1st year.

Index.	No. of papers.	Subject.	Class.	Examiners.
10	35	Arithmetic,	2, 3, 4	Capt. J. H. Fairley.
8	12	Algebra,	3	Leut. F. W. Richey, R.A.*
8	15	Geometry,	2, 3, 4	Leut. D. M. Griffith, R.E.
8	26	Trigonometry,	2, 3	Leut. E. L. Hardcastle, R.A.*
9	30	Mensuration,	2, 3, 4	Capt. J. H. Fairley.
1	1	Mechanics, Part I,	1, 2	Leut. G. C. Nooth, R.A.*
4	17	Mechanics, Part II,	1, 2	
3	23	Hydro-Mechanics,	1, 2	Capt. E. D. Bullen, R.E.
9	33	Geometrical Conic Sections,	1, 2	Leut. H. B. D. Campbell, R.E.
8	14	Co-ordinate Geometry,	1	
8	27	Differential Calculus,	1	
8	29	Integral Calculus,	1	Capt. E. D. Bullen, R.E.
2	28	Applied Mechanics,	1, 2	
4	30	Materials and Construction,	1, 2, 3, 4	G. R. Bird, Esq.*
1	4	Special Construction,	1, 2	Major G. C. P. Osalov, R.E.*
8	11	Estimating,	1, 2, 3, 4	Capt. J. H. Fairley.
6	25	Mechanisms,	1, 2, 3	D. S. Robertson, Esq.*
8	29	Drawing,	1, 2, 3	Capt. E. D. Bullen, R.E.
8	29	Surveying,	2, 4	G. T. Sparks, Esq.
8	23	Experimental Science,	1, 2, 3, 4	Major F. M. Bond, R.E.*
8	23	Astronomy (visual only),	1, 2	Capt. E. D. Bullen, R.E.
1	2	Algebra,	2, 4	Leut. H. B. D. Campbell, R.E.
2	9	Applied Mechanics,	2	D. S. Robertson, Esq.*
8	16	English,	2, 4	Capt. J. H. Fairley
8	21	Arithmetic,	2, 3	
8	26	Algebra,	2	Pandit Baldeo Prasad.
8	13	Geometry,	2, 3	Capt. J. H. Fairley.
8	31	Trigonometry,	2	Lala Shankar Lal.
4	10	Mensuration,	2, 3	Pandit Baldeo Prasad.
8	7	Materials and Construction,	2, 3	Capt. J. H. Fairley
1	5	Special Construction,	2	Pandit Lakhmi Shankar.*
8	16	Applied Mechanics,	2	Munshi Hira Khan.*
2	14	Surveying,	2, 3	Sergt. O. Brown.
1	5	English,	2, 3	Munir Ahmad Beg.
2	8	Rhymography,	2	Sergt. C. Gyles.
				Capt. E. D. Bullen, R.E.

Order of Standing in Class.	Engineer Class.		
	SECOND YEAR.		
	Full Marks, ..		
	Minimum Total, Qualifying Marks for Higher Certificate, ..		
	" " " " Govt. Appointment, ..		
	" " " " Ordinary Certificate, ..		
		Date of Birth	
1	NATH BHANU VIDYANT, ..	1-8-74	Mour Central College, Allahabad, ..
2	NATH BHANU VIDYANT, ..	15-11-75	Presidency College, Calcutta, ..
3	JOSEPH WILLIAM BRADON LOVERDAY, ..	17-8-74	Bishop Cotton School, Simla, ..
4	NATH, ..	0-2-76	Government College, Lahore, ..
5	MICHAEL JEROME BELL, ..	1-8-75	St. Joseph's College, Darjeeling, ..
6	WILLIAM NATH MALLIK, ..	1-8-75	Hoghty College, Hoghty, ..
7	EUGENE MORRIS LECUM, ..	19-8-74	St. Joseph's College, Darjeeling, ..
8	ARTHUR MORRIS JONES, ..	3-2-75	La Martiniere College, Lucknow, ..
9	ARTHUR WILLIAM DADY, ..	10-3-76	La Martiniere College, Lucknow, ..
10	NATH DAS BHOWMICK, ..	1-8-75	Presidency College, Calcutta, ..
11	WILLIAM JOSEPH KNOLLER, ..	10-1-74	St. Michael's School, Mussoorie, ..
12	PERCIVAL MORRIS COLE, ..	20-8-74	La Martiniere College, Lucknow, ..
13	EDWIN MORRIS GILBERT, ..	14-11-75	Richardson South Institute, Mussoorie, ..
14	WILLIAM MORRIS, ..	3-8-75	St. George's College, Mussoorie, ..
15	NATH MOHAN MUKERJI, ..	1-8-74	Canning College, Lucknow, ..

Elementary Two Mathematics.	Mechanics and Conic Sections.	Higher Pure Mathematics.	Applied Mathematics.	Civil Engineering.	Drawing.	Surveying.	Engineering Science.	Physics and Hydraulics.	Grand Total.	Percentage of Total on	Remarks.
400	400	180	200	350	400	400	300	250	3400		
200	200	75	125	425	200	200	180	125	2985	3400	
188	188	..	88	288	188	188	100	88	2047	2985	
188	188	..	88	288	188	188	100	88	1635		
228	241	159	115	665	314	330	278	187	2736	80	Higher Certificate as Assistant Engineer (Journal of India) Price of Rs. 1,000. Thomson Prize of Rs. 500. Gentry Gold Medal for Mathematics. Lieut.-Col. C. B. Brown's Silver Medal for Civil Engineering. General Madhagen's Prize for Experimental Science. Silver Medals for Surveying, Drawing and Photography.
227	274	98	124	520	290	285	295	224	2627	74	Higher Certificate as Assistant Engineer. Raj Mahendran Kumara Lal's Gold Medal.
228	249	86	174	550	270	308	191	235	2405	71	Higher Certificate as Assistant Engineer.
218	194	80	209	549	295	279	205	184	2252	66	Certificate as Assistant Engineer. Thomson Gold Medal for Best Engineering Design.
262	223	17	259	569	297	287	292	241	2284	67	
264	269	103	141	600	220	199	219	200	2216	65	
290	226	24	154	505	290	220	165	200	2113	62	
272	149	..	198	540	372	261	186	229	2085	61	Certificate as Assistant Engineer.
208	191	..	199	305	298	221	164	227	2082	61	
201	217	67	120	321	220	220	206	262	2041	60	
200	142	..	120	495	296	221	172	200	1980	59	
276	171	..	108	495	296	241	160	212	1905	58	Certificate as Assistant Engineer.
281	140	..	102	425	289	240	149	221	1876	55	
265	194	..	124	465	236	209	160	196	1829	54	
207	182	..	124	474	195	187	144	217	1828	54	

Engineer Class.**FIRST YEAR.**

Full Marks,

Qualifying Marks,

		<i>Date of Birth</i>	<i>Where educated.</i>
1	BRUCE BENTLEY SMITH, ..	14-3-76	La Martiniere College, Lucknow, ..
2	FREDERICK COLLE, ..	29-1-75	Pillander Smith Institute, Mussoorie, ..
3	TERENCE ARTHUR BRADLEY, ..	4-10-78	La Martiniere College, Lucknow, ..
4	JOHN JOLLY, ..	11-4-77	La Martiniere College, Lucknow, ..
5	MANJIV PRASAD VARMA, ..	17-2-77	Agri College,
6	ROBERT WILLIAM MARR, ..	20-11-76	La Martiniere College, Lucknow, ..
7	WILLIAM,	2-78	Government College, Lahore, ..
8	WILLIAM LAL,	2-7-76	Government College, Lahore, ..
9	HARRY DALE GREEN,	19-7-78	La Martiniere College, Lucknow, ..
10	WILLIAM VANKETT,	21-2-76	St Joseph's College, Daryjeeling, ..
11	SURENDRA NATH BHADURI,	2-2-75	Canning College, Lucknow, ..
12	CHARLES SHANAN,	22-2-77	St. George's College, Mussoorie, ..
13	HERBERT WILLIAM FOLEY CHRISTIE	16-2-77	La Martiniere College, Lucknow, ..
14	GEORGE RUSSELL LEONARD,	27-2-72	La Martiniere College, Bangalore, ..
15	SIDH PRASAD,	2-2-76	Canning College, Lucknow, ..
16	WILLIAM GEORGE JARRO,	10-2-75	St. Joseph's College, Daryjeeling, ..
17	ALBERT PRASAD,	2-2-76	La Martiniere College, Lucknow, ..
18	WILLIAM VAE,	25-7-74	St. George's College,

Elementary Pure Mathematics	Mechanics and Cable Sections	Applied Mechanics	Civil Engineering	Drawing	Surveying	Experimental Science	Grand Total.	Percentage of Total.	Remarks.
400	220	110	110	110	110	110	1680		
188	88	88	110	88	88	88	880		
139	118	10	212	72	111	96	1184	70	Enjoins College on 1st April.
311	118	61	216	102	96	101	1172	70	
144	207	81	289	37	205	87	1167	69	
293	162	53	284	22	82	91	1052	63	
288	148	49	200	27	98	126	1043	62	
278	141	38	291	72	107	99	1041	62	
281	161	48	291	37	89	106	1034	62	
282	121	54	204	77	97	108	1030	61	
210	127	53	265	25	94	92	1017	61	
269	127	41	266	101	82	81	968	58	
212	122	40	260	64	109	106	926	55	
218	127	42	276	55	101	79	908	54	
270	92	40	238	49	80	70	859	50	
244	129	38	210	24	77	102	827	49	
257	122	41	298	20	63	75	817	48	Failed to qualify.
129	64	26	185	43	80	76	724	43	
210	44	20	262	47	60	70	653	39	
153	75	24	158	21	46	62	540	32	

List of Overseas Apprentices showing where they

No.	Name.	Rank and Corps and where educated.
1	CHARLES HENRY GIDE, ..	Sergt., 1st Gordon Highlanders, ..
2	WILLIAM HENRY, ..	Sergt., 2nd A and B Highlanders, ..
3	ALFRED HARRISON HILL, ..	Lee-Corpl., 2nd K.O. Yorkshire L.I., ..
4	JOHN VALENTINE FRANCHER, ..	Sergt., 2nd Durham L. I., ..
5	GEORGE HENRY FLOWER, ..	Lt. Marlborough College, Lucknow, ..
6	WILLIAM BOURNE, ..	Mr. Sheehan's School, Mameorie, ..
7	CHARLES DUNGAN, ..	Sergt., 2nd A. and B. Highlanders, ..
8	WILLIAM HENRY, ..	Mr. Sheehan's School, Mameorie, ..
9	WILLIAM NORMAN SMITH, ..	Corpl., 2nd Durham L. I., ..
10	WILLIAM HENRY, ..	Sergt., 1st Hampshire Regt., ..
11	FAIZUL HASAN, ..	Saharsagar,
12	THOMAS HILL, ..	Lee-Corpl., 5th B. I. Lancers, ..
13	RIHAN MULLA, ..	Lahore,
14	JOHN GORMAN, ..	Sergt., 2nd Royal Irish Regt., ..
15	CHARLES FREDERICK HEBBARD, ..	Lt. Marlborough College, Lucknow, ..

were trained, and the Branch to which posted.

Where trained.	Branch to which posted.	Remarks.
Bae Bared-Benares Railway and Thomason College,	Military Works.	
Meerut Division, Military Works,	Military Works.	
Poona Division, Military Works,	Military Works.	
Chakrata Division, Military Works and Thomason College,	Thomason College.	
Barth-Benares Railway,	Roads and Buildings, N-W F and Oudh	
Lucknow, Kanoun and Ayerpetta Provincial Divisions,	Roads and Buildings, Assam.	
Thomason College and Chakrata Division, Military Works,	Military Works.	
II, Allahabad Provincial Division, Benares District,	Roads and Buildings, N-W. F. and Oudh	
Lahore Division, Marat-Atock Railway, Rawalpindi Division, Military Works,	Railways.	
Division, Military Works, District, Western Railway,	Military Works.	
Fatehpur Division, Lower Ganges Canal, State,	Irrigation Works, N-W F and Oudh	
Muzaffar-Bahar Railway,	Railways.	
Rawalpindi Division, Military Works,		
Fatehpur Division, Lower Ganges Canal, Benares State,	Irrigation Works, Punjab	
Muzes Division, Military Works,	Military Works.	
Campbellpore Division, Marat-Atock Railway,		
Lahore Provincial Division,	Railways, Punjab.	

Upper Subordinate

SECOND PART

Full Marks,			
Minimum Total, Qualifying Marks for Higher Certificate, .. .			
" " " " Ordinary "			
		Date of Birth	
1	JAMES JOHN EVANS,	18-11-76	Sergt, 5th Field Batty B. A., ..
2	FRANK ALBERT	15-11-76	St. Edmund's College,
3	..... HOTTINGER, ..	9-10-75	St. Edmund's College, Lucknow, ..
4	..... BRIDING, ..	12-8-65	Sergt., 5th Compy. (H) Wn. Dn ..
5	CHARLES HAYLES,	2-1-70	Lee-Sergt., 1st Dorsetshire Regt.,
6	THOMAS ANDERSON HURST, ..	.....	Mr. School, Mussoorie, ..
7	..... GEORGE	24-4-77	St. Fidelis's School, Mussoorie, ..
8	..... DAVID GRANT,	23-8-72	St. George's College,
9	..... LAL,	20-11-74	Delhi,
10	..... BACKSTRAW,	16-10-71	La Martiniere College, Lucknow, ..
11	HENRY	25-8-74	.....-Corpl., 1st Hampshire Regt.,
12	ALFRED VINES,	24-8-68	Lee-Corpl., 2nd Oxford Light Infy.,
13	MUNSHI RAM,	1-1-74	Hoshwarpur,
14	FREDERICK	20-4-67	Lee-Sergt., Humay, ..
15	LAKSHMI DATT TIWARI,	4-8-74	Bareilly,
16	..... CHAND,	20-11-74	Gardnagar,
17	WILLIAM	2-1-75	..... School, Mussoorie, ..
18	CHARLES EDWARD BUTLER O'CONNOR, ..	26-2-75	Lee-Corpl., 1st Royal West Kent,
19	WILLIAM	20-4-74	Lee-Corpl., 2nd Derbyshire
20	SHIAM BEHARI,	12-11-74	Bareilly,
21	.....	27-5-74	Kohat,
22	.....	19-8-71	Lullman,

Mathematics	Civil Engineering		Drawing	Surveying	English	Physics and Sports	Grand Total		Remarks
	Part I	Part II							
400	180	420	300	250	80	180	1760		
300	80	210	180	125	25	75	1090		
133	40	140	100	80	16	20	676		

337	137	382	282	233	46	150	1307	32	{ Higher Certificate as Sub-Engineer. Silver Medal for General Merit, Drawing and Surveying. Prize for Civil Engineering 'Kany' Memorial. Silver Medal for Estimating. Higher Certificate as Sub-Engineer
341	132	332	254	190	41	147	1435	82	
379	114	321	243	191	43	147	1430	69	{ Higher Certificate as Sub-Engineer. Prize for Mathematics
383	103	312	273	210	47	150	1380	79	Higher Certificate as Sub-Engineer
386	138	354	232	215	49	135	1390	■	{ Higher Certificate as Sub-Engineer. Silver Medal for Photography
391	137	333	228	178	43	142	1368	■	{ Higher Certificate as Sub-Engineer. Silver Medal for Photography
340	94	306	109	180	46	147	1316	76	
359	111	319	206	170	38	142	1241	■	{ Higher Certificate as Sub-Engineer. Rai Bahadur Kanyasulk Silver Medal
384	112	261	177	177	59	130	1230	70	
316	92	297	180	156	44	127	1212	■	{ Higher Certificate as Sub-Engineer.
382	112	285	134	187	46	140	1206	69	
198	117	■	200	186	43	140	1190	68	{ Certificate as Overman
184	80	266	901	157	49	125	1145	66	
118	94	158	190	159	46	128	1112	64	{ Higher Certificate as Sub-Engineer.
279	91	133	200	144	29	120	1108	63	
291	81	127	190	163	24	120	1105	62	{ Certificate as Overman
166	82	228	202	142	43	142	1104	63	
221	86	138	203	161	40	140	1101	62	{ Certificate as Overman
224	84	147	176	165	45	143	1086	62	
274	69	198	166	120	44	123	1004	57	{ Certificate as Overman
229	69	203	170	120	34	122	972	56	
243	79	200	123	124	26	125	931	53	

* Qualified in Photography. † Highly Commended for Photography.

Upper Subordinate Class.

FIRST YEAR

Full Marks,

Qualifying Marks,

		Date of Birth	
1	WILLIAM RICH, ...	16-10-'70	Loc-Corpl,
2	WILLIAM ...	10-4-'77	St. George's College, Lucknow, .
3	WILLIAM CHARLES FRANCIS, ..	17-10-'78	Sheehan's School, Mussoorie,
4	HARRY BAILLEY, .	27-4-'66	Sergeant, ... Department,
5	FREDERICK ...	14-8-'74	St. Sheehan's School, Mussoorie,
6	RAM NEWAS SHUKUL, ..	9-11-'77	Allahabad,
7	ALL, ...	15-9-'74	Shalok,
8	... ..	11-11-'74	Gujranwala,
9	LAL GARGYA, ..	15-6-'78	Agri,
10	... ..	8-1-'74	St. George's College, Mussoorie,
11	RATAN, .	10-2-'78	Barilly,
12	CUMMINGHAM, ...	1-1-'86	Color-Sergeant, 1st R. Surrey Regt,
13	HERBERT MALIR, .	4-1-'78	Corpl., 22nd ... Dn, R. A.,
14	ALBERT ... O'LEARY, ...	29-11-'76	St. George's College, Mussoorie,
15	PANNA LAL, ...	8-7-'76	Lahore,
16	SUKHAN LAL BANSAL, ..	16-12-'74	Delhi,
17	... ..	8-8-'73	Loc-Sergt.,
18	WILLIAM ... CHRISTIAN, ...	16-5-'78	St. George's College, Mussoorie,
19	HAMILTON RICKETTS, ...	14-7-'71	Corporal, ... Yorkshire Regiment,
20	SAMUEL ...	17-2-'74	... , 5th ... Battery, ... A.,
21	BERTRAM EDWARD MITCHELL, ...	1-2-'76	St. George's College, Lucknow,
22	JOHN DRYSDALE MATHEW, ..	2-2-'67	Sergeant, ... Rifles,
23	RAM KRISHNA, ...	12-6-'76	Gardaspor,
24	LACHMI NARAIN, ...	8-1-'76	Gardaspor,
25	ALICE ... LUMDEN, ...	28-2-'76	St. George's College, Lucknow, ..

Mathematics	Civil Engineering.		Drawing	Surveying.	English	Grand Total	Percentage
	Part I.	Part II.					
220	120		120	120	30	690	
73	40	23	40	40	19	340	
198				103		582	86
			99		38	548	80
191	90		87		33	527	78
183	83		78		26	516	
176	80			81	24	503	74
		43		79	23	492	72
				79	13	492	72
176	82			19	19	491	72
191	76		75	72	21	470	69
179		43			13	453	
161					22	452	
		64			11	450	68
		11	66	69	28	449	
		41	68			440	65
168		85				430	63
	70		82	72		425	
	77	11		70		419	62
			72			412	61
			96			406	60
119					15		
					19		
178	51				10	386	
120	51				10		59
..

To resign College on 22 April

Lower ~~Examination~~ Class.

SECOND PAPER

Full Marks, ..

 Qualifying Marks, { Class A, ..
 Class B, ..

CLASS A and B.

			<i>Date of Birth</i>		
1	DAULAT RAM,	■	.. 1-11-76	Hosharpur, ..	..
2	DAULAT RAM,	■	.. 28-8-77	Lodhiana, ..	..
3	PIARE LAL,	▲	.. 31-3-76	Sahasarpur, ..	..
4	KAMPTA PRASAD,	■	.. 27-3-74	Lucknow, ..	..
5	RAMJI PRASAD,	▲	.. 10-8-78	Jullunder, ..	..
6	CHANDI PRASAD,	▲	.. 1-8-77	Sahasarpur, ..	..
7	ISHAR DAS,	▲	.. 19-10-75	Gajrat, ..	..
8	RAMJI CHAND,	▲	.. 19-10-78	Lahore, ..	..
9	JAI KISHAN,	■	.. 7-7-77	Jullunder, ..	..
10	BANSHI RAM,	■	.. 6-12-75	Jhalum, ..	..
11	DIWAN CHAND,	■	.. 22-4-77	Mooltan, ..	..
12	GOKAL CHAND,	▲	.. 1-8-76	Sahasarpur, ..	..
13	DROHI NANDAN,	▲	.. 26-12-74	Delhi, ..	..
14	DEVI DIAL,	■	.. 18-8-76	Shahkot, ..	..
15	LACHHMAN DAS,	▲	.. 18-8-76	Kaporthala, ..	..
16	MUL PRASAD,	■	.. 13-7-78	Umballa, ..	..
17	DAULAT RAM,	■	.. 18-8-76	Hosharpur, ..	..
18	HEM RAJ,	▲	.. 18-1-77	Jullunder, ..	..
19	BEH BHAN,	■	.. 18-8-76	Patala, ..	..
20	DAULAT RAM,	■	.. 15-4-75	Lahore, ..	..
21	HAR NARAYAN,	■	.. 18-10-74	Jhalapetun, ..	..

Mathematics.	Civil Engineering.		Drawing.	Surveying.	English.	Physical.	Grand Total.	Percentage of Total.	Remarks.
	Part I.	Part II.							
200	200	200	200	200	200	200	1200		
100	66	66	66	66	66	66	396		
75	50	50	50	50	50	50	294		
81	120	120	120	120	120	98	81		Certificate as 2nd Grade Sub-Overseer. Not In- clude Keweenaw Light Tower Model for General Merit. Silver Medal for Civil Engineering.
81	120	120	120	120	120	98	81		
82	120	120	120	120	120	90	1290		Certificate as 2nd Grade Sub-Overseer. Silver Medal for Engineering.
83	140	120	120	120	120	94	1296	78	
84	140	120	120	120	120	98	1279	77	
85	140	140	120	120	120	93	1272	76	
86	120	120	120	120	120	97	1270	76	
87	140	120	120	120	120	91	1270	76	
88	120	120	120	120	120	94	1266	76	
89	120	120	120	120	120	96	1246	75	
90	120	120	120	120	120	91	1232	74	
91	116	120	120	120	120	89	1227	73	Certificate as 2nd Grade Sub-Overseer.
92	120	120	120	120	120	80	1211	71	
93	120	120	120	120	120	96	1202	70	
94	120	120	120	120	120	90	1198	73	
95	120	120	120	120	120	92	1196	72	
96	120	120	120	120	120	91	1191	71	
97	120	120	120	120	120	96	1186	70	
98	120	120	120	120	120	92	1175	70	
99	120	120	120	120	120	84	1171	69	Certificate as 2nd Grade Sub-Overseer. Medal for Mathematics.
100	120	120	120	120	120	84	1160	68	Certificate as 2nd Grade Sub-Overseer.

* Qualified in Photography.

Lower Subordinate Class.

SECOND YEAR.

(Continued).

		Full Marks,	
		Qualifying Marks, { Class A,	
		{ Class B,	
CLASS A and B			
		Date of Birth.	
22	MINERAJU KHAN, M	.. 4-1-76	Ludhiana, ..
23	LARHURI MAM	.. 2-1-76	Ludhiana, ..
24	ARMAD, A	21-8-77	Umballa, ..
25	BAKHSH, B	.. 25-5-76	Lahore, ..
26	ABDUL LATIF, A	.. 7-3-77	Ludhiana, ..
27	KAMR-UD-DIN, A	.. 24-5-77	Buduan, ..
28	SIGAHYA MAM	.. 2-1-76	Ludhiana, ..
29	SALIG MAM	.. 2-5-76	Ludhiana, ..
30	SINGH, A	.. 20-4-75	Bahawalpur,
31	NATH, A	.. 2-1-76	Karnal, ..
32	MAL, A	.. 17-11-75	Kapurthala, ..
33	LAL, A	.. 2-11-75	Muzaffarnagar,
34	WALI MUHAMMAD, A	.. 9-10-75	Gurdaspur, ..
35	BABU RAM, A	.. 6-10-75	Jalandhar, ..
36	ASA RAM, A	.. 15-11-75	.. ..
37	RAI, A	.. 17-9-74	Jalandhar,
38	RAM LAL, A	.. 2-5-77	Jalandhar, ..
39	MAM	.. 7-4-76	Ludhiana, ..
40	DAS, A	.. 2-1-76	Kapurthala,
41	SAID, A	.. 25-2-76	Bahawalpur,
42	DAS, A	.. 23-11-74	Aligarh, ..

Mathematics.	Civil Engineering.		Drawing.	Surveying.	English.	Physical.	Grand Total.	Percentage of Total.	Remarks.
	Part I.	Part II.							
300	200	300	350	350	170	100	1870		
100	66	66	116	116	58	33	335		
75	50	50	87	87	43	25	256		
197	125	121	120	249		94	1152*		
221	133	114	178	270	140		1149	69	Certificate in Sub-Overseer
184	123	138	223		149		1148	69	
120	177	159	296	249	202		1147	69	Certificate on 3rd Grade Sub-Overseer
114	180	135	209	239	146	87	1146		Model for Drawing
122	128	178	231	244	158	87	1127	67	
173	131	144	270	267	217	93	1127	67	Certificate on 3rd Grade Sub-Overseer
191	110	122	269	254	270		1116	67	
125	123	97		262	246	99	1114	67	
197	209	121	211	111	134		1094	66	
201	123	92		111	145		1075	64	Certificate on 3rd Grade Sub-Overseer
123	113	127	197	122	122		1073	64	Price for Partridge
167	123		214				1072		
209	113	121	172	111		12	1069	64	
178	120	122	172	121	140		1056		
190	101	127	172	122	125	92	1043	63	Certificate in Sub-Overseer
196	120	92	164	121	121	87	1034	62	
170	103	100	199	244	122		1025		
177	124	114			126		1000		
143	113	75	163	219		87	958	57	
113	209	93	206	209	114	95	941	56	

* Qualified in Photography

Order of Standing in Class.

Lower Subordinate Class.

FIRST YEAR.

Full Marks,

Qualifying Marks,

				Date of Birth			
1	..... LAL,	..	..	20-8-77	Meerut,	..	..
2	FAKIR-UD-DIN,	..	..	17-9-76	Ludhiana,	..	..
3	BHOLA SINGH,	..	..	16-4-76	Ludhiana,	..	..
4	GAURI SHANKAR,	..	..	17-3-77	Jalandhar,	..	..
5	WILAYATI RAM,	..	..	20-11-76	Ludhiana,	..	..
6	HABIB AHMAD,	..	..	1-1-76	Aligarh,	..	..
7	BARYAM SINGH,	..	..	4-4-76	Patna,	..	..
8	BEHARI LAL,	..	..	2-4-77	Ludhiana,	..	..
9	MILAWA RAM,	..	..	4-4-76	Jalandhar,	..	..
10	..... LAL	..	..	12-8-76	Patna,	..	..
11	AHMAD-UD-DIN,	..	..	21-5-77	Patna,	..	..
12	.....	..	..	15-1-76	Karnal,	..	..
13	ATMA .....	..	..	10-3-77	Patna,	..	..
14	GULZARI MAL,	..	..	20-3-76	Gurgaon,	..	..
15	..... (S),	..	..	2-5-76	Ludhiana,	..	..
16	MUHAMMAD ALI KHAN,	..	..	14-4-76	Meerut,	..	..
17	.....	..	..	12-4-77	Ludhiana,	..	..
18	LAL .....	..	..	24-5-76	Ludhiana,	..	..
19	.....	..	..	16-4-76	Patna,	..	..
20	SULAKI .....	..	..	19-12-76	Baharapur,	..	..
21	..... RAI,	..	..	7-3-76	Kapurthala,	..	..
22	..... LAL,	..	..	27-8-76	Hissar,	..	..
23	..... (J),	..	..	24-5-76	Patna,	..	..
24	.....	..	..	7-6-77	Jalandhar,	..	..

Elementary Mathematics.	Natural Science.	Drawing	Surveying.	Language.	Materials and Construction.	Grand Total.	Percentage of Total.	Remarks.
280					150	1020		
80	10	70	■	■	80	810		
184	22	160	186	57	124	819	80	
189	20	150	195	72	133	810	■	
193	22	159	210	67	124	788	■	
212	27	156	184	79	127	781	77	
161	15	164	198	82	113	775	76	
210	16	164	169	83	116	768	75	
183	22	160	202	59	126	758	74	
186	24	127	184	72	128	727	71	
228	27	129	166	72	129	722	71	
187	25	142	185	67	112	719	■	
182	22	141	192	62	112	716	70	
191	22	122	180	67	120	714	70	
216	24	127	160	69	105	681	67	
179	25	120	167	77	115	683	■	
144	21	126	193	66	112	680	■	
116	21	121	180	21	111	680	66	
196	23	119	151	56	106	651	■	
141	20	122	190	22	107	642	63	
180	22	91	125	66	94	638	62	
126	19	119	162	71	101	628	62	
131	26	119	127	71	120	624	■	
178	22	87	140	66	119	612	60	
148	22	87	160	62	110	591	■	
149	18	93	167	76	88	588	■	

To register College on 1st April

Military Survey

Order of Standing in Class.

Rank and Name.	Drawing.	Surveying.	Field Sketching and Reconnaissance.	Panel Examination and Sketch.	Grand Total.	Percentage of Total.	Nature of Certificate— H. Higher. O. Ordinary.
		50	100	50	300	33	H
		34	..	..	200	22	H
		25	..	..	100	11	O
Qualifying Marks, Higher Certificate.
" " Ordinary "
1. G.,	..	25	40	40	205	23	H
2. WRITEN, A.,	..	24	45	45	214	24	H
3. MCGOWAN, H.,	..	24	40	40	204	23	H
4. T.,	..	24	40	40	204	23	H
5. G.,	..	24	40	40	204	23	H
6. JONES, D.,	..	24	40	40	204	23	O
7. A.,	..	24	40	40	204	23	O
8. S.,	..	24	40	40	204	23	O

Native Military Survey Class.

	Mathematics.					Surveying.					Grand Total.	Percentage of Total.	Nature of Certificate.
	Arithmetic.	Constructive Geometry.	Constructive Trigonometry.	Total.	Field Works, Modern Instrumentation.	Field Works, Independent.	Residuals.	Drawing.	Total.				
and Report	30	30	40	100	60	150	300	200	800	700			H. Higher.
Qualifying Marks, Higher Certificate.	"	"	"	"	"	100	138	"	400	467			H. Higher.
"	"	"	"	"	"	75	108	"	300	380			H. Higher.
RAM DATAL SINGH, .	30	30	31	91	41	124	161	181	513	604	88	H.	
SHEIKH ABDUL KADIR.	27	29	31	87	43	124	172	161	503	598	85	H.	
CHUER SINGH,	30	30	34	94	39	122	175	143	485	559	80	H.	
SOHAN SINGH,	30	30	39	99	43	126	170	164	482	581	79	H.	
SIRDEOJ GURUNG,	"	"	"	78	11	101	143	170	448	526	75	H.	
RAMJI SINGH,	"	"	"	77	43	118	133	174	448	528	75	H.	
KHAN,	24	"	"	"	"	106	164	171	447	523	75	H.	
NAJAB,	"	"	23	77	11	108	176	177	410	487	69	H.	
RAJAB ALI,	24	29	9	62	"	92	140	123	421	493	69	O.	
BAKI SHAH,	19	13	13	45	34	111	123	181	418	462	68	O.	

Name	Rank and Corps	Caste	Residence		
			Village	Paras or Tehsil	State
1. [REDACTED]	Bomb, 16th Bengal Lancers, ..	Jat	Bygones	Bahadurabad,	Bahadurabad
2. SOHAN [REDACTED]	Duffield, 16th Bengal Cavalry, ..	Award	Pindiah Khurd,	Sialkot	Sialkot
3. [REDACTED]	Bomb, 4th Punjab In- fantry, ..	Jat Sikh	Median, ..	Thana Tarnan,	Ambhar
4. SIRDHOJ GURJUNG,	Lee-Mack, 2nd Bn. 1st Gerrils Rifles, ..	Gurmug	Dangadlin, ..	Dangadlin, ..	Khan
5. [REDACTED] ALI,	Bomb, "Queen's Own" Corps of Guides, ..	Qand Bakh	Pandavot, ..	Pandavot, ..	Pandavot
6. RAJAB,	Lee-Mack, 5th Punjab Infantry, ..	Uman Khel, ..	Baghdadi, ..	Mardan, ..	"
7. RAKI [REDACTED]	Mack, 1st Sikh Infa- ntry, ..	Kanah	Yar Hamid, ..	Swat, ..	"
8. RAKI [REDACTED]	Mack, 7th Bengal In- fantry, ..	Rajput	Bajpur, ..	Dalamot, ..	Rel Bawilly
9. [REDACTED]	Mack, 7th Bombay In- fantry, ..	Pindian	Pindian, ..	Pindian, ..	Pindian
10. SURESH ABDUL KADUR,	Lee-Mack, 1st Bombay Infantry, ..	Shah	"	"	"

**Special Class of Non-Commissioned Men for the Mon-
Uganda Railway.**

No.	Name.	Comp.	1	Plas.		Bull. Books.	Trunk	Clock	Overl.	Grand Total.
				50	100	50	50	50	50	300
1	HAZAM SINGH,	4th Bengal Cavalry,	..	..	..	..	..	45	..	..
2	.....	Bavilar, 1st Sikh Infantry,	..	..	..	..	40	..	..	253
3	PURAN SINGH,	Duffield, 12th Bengal Cavalry,	..	..	..	..	..	..	..	245
4	HARNAM SINGH,	" 17th " "	..	..	75	..	..	..	..	..
5	KABI BAKSH,	Haridwar, 17th " Infantry,	..	45	..	..	..	..	..	241
6	GHULAM ALI,	Muz, 2nd Punjab "	..	..	..	25	45	..	..	..
7	HAZARA SINGH,	" Bengal Sappers and Miners,	..	50	..	..	..	35	..	232
8	JAMSHED KHAN,	Duffield, 12th Bengal Cavalry,	..	50	..	..	..	..	..	205
9	BUDH RAJ,	" 12th " "	..	..	..	50	..	..	..	..
10	RAM SINGH,	Haridwar, 12th Sikh Infantry,	..	..	25	..	50	..	..	..
11	GHULAM RASUL,	" 2nd Punjab "	..	..	..	..	..	..	..	185

Specialist Train Class.**March, 1947.**

No.	Name.	Station.	
1	KALYAN RAI,	Lucknow,	
2	SHIV DIAL,	"	
3	LALMOHAN SHIV LAHRI,	"	
4	CHANDRA DATT,	"	
5	SHIV PRASAD,	"	
6	SHIV MITRA,	"	
7	SAJJAD HUSAIN,	"	
8	RAZA HUSAIN,	"	
9	GANGULY,	"	

1897

Drawing.			Surveying					Experimental Sciences				Physical and Sports.	Grand Total.	Order of Standing in Class.
Project Drawings.	Final Examination	Total.	First Year's	Meridian Observations	Project Surveys.	Final Examination.	Total.	First Year's Examination	Monthly Examinations.	Final Examination.	Total.			
100	80	180	100	15	175	50	400	100	100	40	300	100	3400	
68	54	314	114	13	145	44	320	122	98	55	272	181	2736	1
69	59	292	110	13	127	33	263	113	90	46			2527	2
70	58	278	120	14	141	59	303	98	71	37	191	233	2405	3
60	2	236	118	9	116	56	279	97	72	39	208	180	2352	4
69	27	297	97	14	145	38	287	82	81	28	192	241	2284	5
30	7	220	80	9	80	30	199	95	76	44	219	200	2215	6
14	17	295	98	7	95	30	233	82	60	22	111	208	2113	7
50	18	318	95	11	120	25	261	67	70	39	166	229	2085	8
83	19	293	98	10	114	31	255	62	77	24	164	227	2082	9
43	13	212	89	12	100	35	235	98	71	37	206	192	2041	10
38	16	296	95	10	105	25	235	78	72	22	172	208	1950	11
84	13	236	84	11	122	20	241	76	70	22	168	212	1905	12
81	2	259	102	10	105	22	240	86	72	20	149	221	1876	13
67	5	236	84	7	81	17	188	75	68	17			1829	14
50	15	193	89	12	90	19	187	62	60	20	144	217	1828	15

Drawing.				Surveying.				Experimental Science.			Grand Total.	Order of Standing in Class.
Monthly Examinations	General Engineering	Final Examination.	Total.	Station Surveys.	Adjustment of Instruments and Curves.	Final Examination.	Total.	Monthly Examinations	Final Examination.	Total.		
70	40	80	140	100	30	25	160	100	—	140	1180	
29	16	18	73	78	21	16	115	75	31	96	1184	1
31	24	28	105	89	23	14	96	78	23	101	1172	2
31	25	7	57	63	25	17	105	66	21	87	1167	3
38	20	24	82	54	17	17	88	74	19	93	1052	4
20	23	14	57	58	20	20	98	78	28	106	1048	5
40	18	17	75	68	22	17	107	79	20	99	1041	6
26	24	7	57	57	20	12	89	86	20	106	1034	7
36	29	23	77	71	26	10	97	84	24	108	1030	8
33	23	23	85	69	23	12	94	75	18	93	1017	9
34	25	22	101	56	18	15	83	66	23	81	968	10
93	21	14	64	74	26	20	109	83	21	106	928	11
31	20	10	55	64	21	16	101	66	23	79	908	12
26	20	3	49	47	21	12	80	89	11	70	839	13
19	13	8	34	31	15	11	77	82	29	105	827	14
13	11	6	30	40	10	13	63	58	17	75	817	15
21	14	8	43	63	9	10	82	69	16	85	724	16
16	29	2	47	43	11	7	60	58	22	70	653	17
7	13	1	21	27	11	2	46	47	18	65	540	18

Surveying.						English.			Phyque and Sports.	Grand Total.	Order of Standing in Class.
Monthly Examination.	Chart, Traverse & Plane Table.	Leveling & Chaining.	Adjustment of Instruments.	Final Examination.	Total.	First Year's Marks.	Final Examination.	Total.			
25	50	45	25	45	250	15	35	50	150	1750	
7 32	45	45	35	45	233	15	31	46	150	1607	1
8 34	40	37	15		192	21	30	41	147	1435	2
9 10	41		17	37	104	13	30	43	147	1430	3
10 35	45			36	111	15	30	47	150	1390	4
11 18	44			42	115	14	35	49	135	1380	5
12 32	37	11	7	31	176	13	31	43	142	1363	6
13 14	43		11	39	180	14	31	45	147	1316	7
14 13	37	34	14	35	170	20	30	38	142	1241	8
15 30	39	39	33	41	177	9	30	39	130	1230	9
16 10	37	35	9	19	100	14	30	44	127	1212	10
17 10	43	11	13	34	121	12	33	45	140	1205	11
18 32	37		19	31	186	12	32	45	143	1190	12
19 19	33	35	5	18	111	12	30	40	123	1145	13
20 11	39	35	13	24	121	12	32	46	133	1113	14
21 13	33	11	14	22	144	11	28	29	130	1108	15
22 10	19	19	15		111	7	19	24	130	1105	16
23 11	35	11	8	13	142	13	30	42	142	1104	17
24 10	35	31		13	161	12	31		140	1101	18
25 18	28		12	29	111	14	31	45	145	1086	19
26 14	27	30		12	122	14	30	44	131	1004	20
27 11	29		12	19	111	12	23	34	125	972	21
28 15	19	28	7	10	101	8	27	35	125	931	22

ag.	Surveying.				English.	Grand Total.	Order of Standing in Class.
	Total.	Monthly Examination.	Class, Principles Surveying, Plane Table & Traversing.	Final Examination.			
	120	15	80	80	120	30	680
100	9	■	39	105	22	582	1
99	9	■	38	89	23	546	2
87	8	84	24	88	23	527	3
78	8	59	19	86	26	516	4
89	7	57	17	81	24	503	5
84	8	57	20	79	23	496	6
80	8	■	22	79	18	492	7
102	8	53	8	68	19	491	8
75	7	■	32	78	21	470	9
80	7	42	3	63	15	455	10
98	8	49	11	68	22	452	11
97	8	62	13	84	21	450	12
85	9	51	9	69	23	449	13
65	9	44	9	62	29	448	14
68	6	■	18	73	18	440	15
82	8	52	12	72	10	430	16
66	8	■	8	70	18	425	17
72	8	■	17	72	28	424	18
96	9	51	10	76	14	419	19
67	7	33	13	73	23	412	20
61	8	■	20	79	15	406	21
54	8	■	14	82	19	392	22
63	3	49	5	59	10	386	23
64	3	47	17	69	10	342	24

Surveying.					English.				Physique.	Grand Total.	Order of Standing in Class.
Monthly Examination.	Outdoor Survey.	Outdoor Levelling.	Final Examination.	Total.	First Year's Marks.	Monthly Examinations.	Final Examination.	Total.			
30	110	140	30	350	25	65	70	170	100	1670	
14	99	130	10	294	31	63	59	153	96	1354	1
15	92	126	13	293	30	64	65	150	96	1351	2
16	100	137	12	295	25	63	49	126	90	1299	3
19	103	112	22	291	22	40	42	104	94	1296	4
18	88	101	7	291	29	60	52	141	98	1279	5
16	100	126	7	289	27	55	51	133	83	1272	6
14	97	122	9	281	29	62	52	143	97	1270	7
17	103	112	8	279	27	62	51	141	91	1270	8
14	100	120	8	281	26	60	51	136	84	1268	9
17	86	120	12	264	20	36	54	140	96	1246	10
14	94	117	12	277	20	60	39	149	91	1232	11
16	90	114	8	264	24	52	48	122	89	1227	12
15	93	103	7	254	20	62	39	151	80	1221	13
11	95	116	10	269	20	60	38	143	96	1202	14
13	83	119	14	259	28	59	52	140	90	1198	15
14	87	120	20	269	27	54	50	131	98	1196	16
15	90	117	9	267	29	60	51	140	91	1189	17
17	94	83	7	234	21	62	57	149	96	1176	18
13	92	114	7	266	27	57	50	134	92	1175	19
14	84	113	10	255	22	64	57	153	84	1172	20
16	89	90	7	243	27	57	48	129	92	1160	21

APPENDICES.

APPEN

Dr.

ACCOUNT CURRENT ■ ■ ■ Thompson Civil

By Civil Department—		Rs.	A	P.	Rs.	A	P.
I.—Remittances to Civil from P ■ Department—							
■ ■ ■ ■ ■ by ■ ■ ■ of the							
Public Works Department, .. ..		..	..	..	43,180	8	11
III.—Items adjustable by Civil Department—					3, 68	8	7
IV.—■ ■ ■ ■ ■ by P W Department—							
Central Adjusting Account, .. ..		..	..	..	444	8	8
Telegraph Department, .. ..		..	..	..	1	0	0
Transfers of the Public Works Department—							
Divisional,		3,640	10	18			
Buildings and Roads,		3,488	1	9			
Irrigation,		3,458	11	2			
State Railways,		557	15	8	13,518	7	0
Expenditure against Provincial Budget Grant—							
Establishment.							
Education—							
Salaries,		97,552	9	31			
Exchange Compensation Allowances,		3,085	15	9			
Contingencies,		6,172	6	4			
Prizes,		1,559	8	2			
Printing,		2,490	6	0			
Travelling Allowances,		3,941	10	11	1,25,402	8	2
Library—							
Salaries,		660	0	0			
Books,		1,370	14	8			
Contingencies,		513	0	1	3,448	14	7
Medical—							
Salaries and Exchange Compensation Allowances		3,031	8	10			
Contingencies,		191	9	9	4,073	3	7
Press—							
Salaries,		14,245	4	9			
Contingencies,		1,185	0	5	15,480	5	0
Book Depôt—							
Salaries,		1,000	0	0			
Contingencies,		476	15	8	1,555	15	8
Tools and ■ ■ ■ ■ ■, Press, .. ..		..	..	..	592	4	0
Do., College, .. ..		..	..	..	7,025	5	5
Balance on 31st March, 1926, debited to Civil							
Department, .. ..		..	..	..	41,372	7	6
Cash Balance on 31st March, 1926, .. ..		..	..	..	5	9	9
Total Expend,					2,54,556	5	2

ROCKERS:

11 April, 1926.

A.

Engineering College in the year 1895-96.

Cr.

	Rs.	A.	P.	Rs.	A.	P.
To Balance on 1st April, 1895,	—			47,850	3	2
" II—Remittances from Civil to Public Works Department—						
Cheques of Public Works Department Officers, ..				1,00,000	0	0
" III—Items adjustable by Civil Department—				2,500	4	8
—Items adjustable by Public Works Department—						
Central Adjusting Account,				1,351	0	9
Telegraph Department,				473	0	11
" Transfers of the Public Works Department—						
Divisional,	8,095	1	8			
Buildings and Roads,	7,021	0	0			
Irrigation	3,947	8	4			
State Railways,	7,188	5	8	20,481	10	4
" Income Tax				2,485	12	7
" Provincial Revenue Receipts—						
College and Examination Fees,	2,764	6	8			
Rent of Buildings,	2,670	19	9			
Miscellaneous,	289	8	2			
Press,	15,868	15	1			
Book Depot,	2,352	4	2	26,792	14	8
" London Account—Stores,				2,180	6	1
Total Receipts,				2,64,854	5	2

J. CLIBBORN, LACER-GENL., I. & C.,

Principal, [REDACTED] College.

STATEMENT B.

Statement of the working of the Thomson Civil Engineering College from for 1884-85.

To.

CAPITAL.

On.

To	Balance on 1st April, 1884—	By	Stock expended during the year, ..	Balance on 1st April, 1885—
Stock, ..	22,000 1 5	"	Depreciation of Tools and Plant, ..	4,010 18 1
Tools and Plant, ..	31,049 0 2	"	"	810 7 17
Undebited work, ..	4,468 15 6	"	"	5,880 4 0
Stock purchased during the year, ..	8,540 4 2	"	"	1,763 5 2
Tools and Plant do., ..	1,318 0 7	"	"	"
Value of undebited work at end of current year, ..	.. ..	"	"	.. ..
Total Expend, ..	70,121 10 11	"	Total Expend, ..	70,121 10 11

Revenue.

To	Establishment, Salaries, ..	By	Value of work done during the year—	Balance on 1st April, 1885—
" Contingencies, ..	1,222 10 9	"	for College (including Library), ..	4,095 14 0
Stock from Capital, ..	4,010 18 1	"	" Book Dep't, 1 Stock, ..	4,877 14 0
Depreciation of Tools and Plant, ..	810 7 17	"	" Government Departments, ..	838 8 0
Undebited work of previous years billed for during the year, ..	.. ..	"	" Sum-privates and private individuals, ..	10,468 15 6
Profits, ..	.. ..	"	" Value of undebited work at end of current year, ..	1,931 18 0
Total Receipt, ..	22,309 15 14	"	Total Receipt, ..	22,309 15 14

RECEIVED:

J. CLIBBORN, Lectur.-Gen., I.C.E.,

1st April, 1885

Principal, Thomson College.

APPENDIX 40.

of the voting of [redacted] Engineering College [redacted] Debit

Dr.

CREDIT

	ms.	ls.	d.	ms.	ls.	d.	ms.	ls.	d.
To Balance on 1st April, 1896,	10,300	10	0	By Value of issues at cost price during the year, ..	..	..
By Purchases during the year—							7,510	0	2
Fees,	4,574	14	0	Depreciation of Stock, ..	..	..
Other sources,	2,826	0	10	Balance on 31st March, 1896, ..	..	..
						
Total Debits,	17,699	18	0	Total Credits, ..	..	..
							14,959	18	0

REVENUE.

	ms.	ls.	d.	ms.	ls.	d.	ms.	ls.	d.
To Stock received from Capital at cost price,	7,310	0	2	By value of sales during the year—		
By Replenishment, Salaries,	1,400	0	0	To College Staff and Students, ..	..	..
By Contingencies,	497	15	0	" Government Departments, ..	..	..
By Depreciation of Stock,	154	14	5	" Private individuals, ..	..	..
By Profit,	7,877	10	0
						
Total Debits,	11,359	2	10	Total Credits, ..	..	..
							11,359	2	10

RECEIVED:

April, 1896.

J. OLLIBORN, LIVER-COL., M.C.,

Principal, Thomason College.

APPENDIX D

LIST OF NEW BOOKS, 1896-97.

[Corrected to 10th February, 1897].

P. P. - () Presented by Government.*

(b) *Author, Society, or Institution.*

	Name of Book.	When published and year	Author	No. of Vols.
A a				
51	Elementary Algebra,	Lon. '94	{ Haithornthwaite, J. T.	1
	Elementary Algebra,	Lon. '95	{ Welford, J. W. Mayo, C. H. P.	1
39	Calculus,	Lon. '88	{ Rice, J. M. Johnson, W. W.	1
41	Integral Calculus,	Lon. '82	Johnson, W.	1
42	Graphical Calculus,	Lon. '86	Barker, A. H.	1
A b				
	Arithmetic,	Cam. '94	Smith, C.	1
35	Arithmetic,	Lon. '84	Pondlebury, C.	1
36	Arithmetic for Indian Schools,	Lon. '95	{ Pondlebury, C. Tait, T. B.	1
67	Easy method of finding Averages, Invo- lution		Shenahan, M.	1
38	Principles and Practice of Book- keeping, 2nd Edition,	Mad. '94	Aiyar, K.	1
	The Elements of Book keeping,	Mad. '94	Dy	1
A d				
77-1	Elementary Treatise on Mensuration,	Lon. '94	Moore, H. T.	1

Label No	Title of Book.	When published and year	Author.	
A d				
	... of Geometry, ...			
	1 to 6, 11 and 12, ...	Cam. '91	Taylor, H. M.	1
28	Practical Geometry, ...	Lon. '91	Wilcocks, E. O.	1
	... Geometry, ...	Lon. '91	Do.	1
	Plane and Solid Geometry, ...	Lon. '91	Do.	1
	A Course of Practical Geometry for ... Naval College, ...	Portsmouth '66		1
A e				
2A-1	Conic Sections, ...	Lon. '95	Beant, W. H.	1
	Geometrical Conics, ...	Cam. '95	Macaulay, F. S.	1
A f				
28 '1	Elementary Trigonometry, ..	Lon. '95	Pendlebury, C.	1
A g				
	Computation ... and Logarithms,	Lon. '96	Holman, S. W.	1
B a				
	First Stage Mechanics, ...	Lon. '96	... , F.	1
	Mechanics for Beginners, ...	Lon. '96	Gallatly, W.	1
45	... Mechanics, ..	Chic. '98	Mach, E.	1
B a b				
1243	Elements of Mechanism (2nd copy), ...	Lon. '96	Goodwin, T. M.	1
	Applied Mechanics, Bookless Manual, Vol I, ... Edition, ...	Reed. '96	{ Cunningham, A. { Harrison, J. H. O.	1
124	Statically Indeterminate Structures and the Principle of least work, ...	Lon. '96	Martin, E. M.	1
125	Progress in ... Principles of Construction, ...	Lon. '96	Mossley, Rev. H.	1
126	Instruction in Construction, ...	Lon. '96	Wray, H.	1
127	Elementary Practical Physics, ...	Lon. '96	Watson, W.	1
B a c				
	Elementary Dynamics, ...	Lon. '96	Garnett, W.	1
	Examples in Hydraulics, ...	Lon. '96	Wray, H.	1

Libr. No.	Title of Book.	Where published and year	Author.	No. of Vols.
B h				
55	Engine, ..	Lon. '95	Warren, J.	1
56	Light, ..	Lon. '95	Kantaga, W. T. A.	1
B c				
62	Electricity and Magnetism, ..	Lon. '93	Bottson, S. R.	1
63	Electricity, Vol. I., ..	Lon. '95	Ayrton, W. F.	1
B d				
71	Practical Inorganic Chemistry, ..	Lon. '95	Turpin, G. S.	1
72	Chemistry for Engineers, Vols. I. and II., ..	Lon. '95	{ Blount, .. { Bloxam, ..	2
73	Anleitung Zur Molekulargewichtsbestimmung, ..	Leips. '95	{ Fuchs, Phil { Gotthold.	1
74	Lecture Notes for Chemical Students, Vols. I. and II., ..	{ Lon { '76 & '81	Frankland, E.	2
75	Inorganic Chemistry, ..	Lon. '84	{ Frankland, E. { Japp, F. R.	1
C a				
24-3	The .. in 6 Maps, ..	Lon. '29		1
46	Memoirs of the Astronomical Society, Vols. XXXVIII, XXXIX. and XL to XLVIII, ..	Lon. '95	Lowell, P.	1
56	Climate of India, Ceylon and Borneo, ..	Lon. '89	Blanford, H. F.	1
111	The Scenery of .. and the causes to which it is due, ..	Lon. '95	Lubbock, J.	1
C b				
39-1	Manual .. Geography, ..	Lon. '88	Bevan, L.	1
170	The Geography of British India, Political and Physical, ..	Lon. '95	Smith, G.	1
174	Man and his Markets, ..	Lon. '95	Lyde, L. W.	1
C c	Man on the Earth, ..	Lon. '95	Do.	1
96	The Forest of .. India, .. XXI.	Lon. '95	Hooker, Sir J. D.	1
96	The Indian Forester, Vol. XXI, ..	Mum. '95	Gamble, J. S.	1
96	A Manual of Forestry, Vol. V., ..	Lon. '95	Fisher, W. E.	1

Lab. No.	Title of Book.	When published and year	Author.	Cost
Ch				
71	Memoirs of the Geological Survey of India, Series 14, Vol. I, Part I. and Vols. XXV. and XXVI., ..	{ Cal. '95-'96	Hooding, F.	4
	Records of the Geological Survey of India, Vol. XXVIII., ..	Cal. '95		1
	Reports, 1893-94, (one volume plates) 1894-95, II, III and IV., ..	Wash. '95,	{ Powell, J. W. Walcott, C. D.	4
-87	Geological Atlas of the United States of America, 7 and 25,	Wash. '94, '95,	Do.	14
Ch				
195	Chambers's English Dictionary, ..	Lon. '94	Chambers, W. & R.	1
Ch				
114	Physical Laboratory Manual,	Lon. '94	Chute, H. N.	1
Da				
7	The Principles of Science, a Treatise on Logic, 2nd Edition, ..	Lon. '94	Jevons, W. S.	1
Dd				
92-1	Notes on Muhammadanism, 3rd Edition, ..	Lon. '91	Hughes, T. P.	1
90	Dictionary of Islam, ..	Lon. '95	Do.	1
De				
60	Democracy and Liberty, Vols. I. and II., ..	Lon. '96	Lasky, W. E. H.	2
61	Egypt under British, ..	Lon. '96	Wood, H. F.	1
Db				
53	Alexander's Empire,	Lon. '94	Mahaffy, J. P.	1
De				
	A Short History of the English people,	Lon. '91	Green, J. R.	1
De				
194	Rhodesia, ..	Lon. '91	Leonard, A. G.	1
125	and Storm in Rhodesia, ..	Lon. '96	Selous, F. O.	1

Libr. No.	Title of Book.	When published and year	Author.	No. of Vols.
F b				
70-10	██████████ (4th copy), ..	Chat. '75	Inglis, Col.	1
83	██████████ in Action, ..	Lon. '96	Wilson, ██████	2
84	██████████ Kelly ██████ Chitral, ..	Lon. '96	Boydson, W. G. L.	1
85	██████████ ██████████ from 1858 to 1882, ..	Lon. '94	Donat, Karl; Van, {	1
86	Praxis ██████ Tactics, ..	Lon. '93	{ Home, ██████ Pratt, B. ██████	1
87	██████████ in Military Engineering, ..	Lon. '94		1
88	██████████ I., ██████ Defences, ██████ Edition, ..	Lon. '94		1
89	██████████ III., Military Bridging, 4th Edition, ..	Lon. '94		1
90	██████████ IV., Mining and Demolition, 4th Edition, ..	Lon. '92		1
91	██████████ V., Miscellaneous, 4th Edition, ..	Lon. '90		1
92	██████████ Firing ██████████ by Electricity, ..	Chat. '88		1
93	██████████ Military Railways, ..	Lon. '89		1
94	Army Sanitation, ..	Chat. '87	Galton, ██████ D.	1
95	Fire and Sword in the Sudan, ..	Lon. '96	{ Slavin Pasha, F. B.	1
F c				
55	██████████ India Contaminants, ..	Ald ██████	Henkin, E. H.	1
56	Guide to Travellers on the maintenance of Health in unhealthy climates, ..	Lon. ██████	Oxley, H.	1
57	A Handbook of Hygiene, ..	Lon. '96	Davies, A. M.	1
58	Nouveaux ██████████ d'Hygiene, ..	Paris ██████	Arnould, Jules.	1
59	██████████ Bacteriological ██████ of ██████ Panty of Water, ..	Agra ██████	Hankin, E. H.	1
60	██████████ Cause ██████ Prevention of Cholera, ..	Agra ██████	Do.	1
F d				
33-7	██████████ College Calendar for 1896 (██████████ copies), ..	Reor ██████		2
119	██████████ School Calendar, 1896, ..	Lon. ██████	Storr, F.	1
120	Errors in ██████████ English, ..	Edin. '96	Hodgson, W. B.	1
██████████				
45	The Law of Copyright, ..	Lon. ██████	Scrutton, T. E.	1

APPENDIX.

25

Libr No.	Title or Subject	Published and year	Author	No. of vols.
	Building Materials,		Dent, W. Y.	1
22	Strength of Materials, 5th Edition (2nd copy),	Repr. 1900		1
27	Materials of Engineering, III, Brasses, Bronzes and other Alloys, Portland Cement and .. of its uses, Iron and .. applicable in Engineering Works, ..	Y. '93 Olat. '79	Thurston, R. Bernays, E. A.	1 1
	Report on the use of Expanded Metal in Concrete, ..	Lon. '96	Percy, Dr. { Fowler & Baker, { ..	1 1
G b	.. .. Building Construction, Science and Art Department, Kensington—			
19-1	Part I,	Lon. '92	Smith, Major F.	1
20-1	" II,	Lon. '92	Do.	1
22-1	" III,	Lon. '92	Do.	1
23	" IV. (2nd copy),	Lon. '92	Do.	1
29	Builder's Work and the Building Trades, on Building Construction, Science and Art Department, Kensington,	Lon. '92	Geddon, H. G.	1
G c				
24	Specifications and Drawings of Roadway Bridges, Nos. 1 to 25,	'88	James, J. W. H.	1
G d				
11	Road Project,	1900	Hart, J. H. H.	1
G e				
23-1	Railways, .. Edition,	Repr. 1900	Wolley Dod, F.	1
21	.. .. Laying .. Curves,	Lon. 1900	Krönka, G. H. A.	1
23	Light and Temporary Railways,	1900		1
24	Railways New South Wales,	Syd. 1900		1
25	Railway Construction in Bengal, Engineering College Lectures,	1900		1
26	Railway in Bengal, Engineering College Lectures,	1900	Do.	1

Libr. No.	Title of Book.	Where published and year	Author	No. of Vols.
G g				
67	Report of [redacted] ascertaining the Discharge of Rivers and open Canals, [redacted] Supplement,		Odling, C. W. Bestia, W. B. Maconchy, G. C.	2
G h				
82	Report on the Ganges Canal Works, Vol. I., (4th copy), Vol. II., (3rd copy),	Lon. '88	Castley, Sir, P. T. Boid, A. [redacted] Figham, [redacted] Benton, J.	2
71	Punjab Irrigation Paper, No. 5, Sitting Operations,		Haywood, J. M.	1
72	The Transporting Power of Water, ..	Cal. '69		1
G j				
83	Lecture at Washington [redacted] Tehn- satepec Route,	Wash. '93	Corthell, E. L.	1
83	Canal and River Engineering, ..	Chat. '77	Stevenson, D.	1
84	[redacted] and Canals, 2nd Edition, ..	Oxf. '96	Harcourt, L. F. V.	2
85	Report [redacted] Navigation of the Punjab Rivers,	Lon. '60	Purdon, W.	1
86	Navigation Canals in India, Sibpur En- [redacted] College Lectures, ..	Cal. '85	Apjohn, J. H.	1
87	[redacted] Launch Construction, Sibpur En- gineering College Lectures, ..	Cal. '85	Steele, W. E.	1
G k				
80	Water-supply [redacted] Well-boring, ..	[redacted] '77	Manterph, J.	1
81	New South Wales Water-supply, ..	Syd. '77	Clark, [redacted]	1
82	Sydney Water-supply, ..	Syd. '77	Do.	1
83	The Water-supply of [redacted] and Cantonments,	Chat. '88	Moncrieff, G. K. S.	1
84	Water-supply,	Lon. '88	Mason, W. P.	1
85	Report [redacted] Water-supply of Luck- [redacted] City,	[redacted] '88	[redacted] Cunningham, [redacted] Major A.	1
G n				
14	Sanitary Engineering Notes, ..	[redacted] '82	Moore, E. C. S.	1

List No.	Title of Book.	Where published and year	Author.	No. of Vols.
G N				
30	Electrical [redacted] making, ..	Lon. '93	Bottone, E. R.	1
31	Electric Motors, ..	Lon. '91	Do.	1
32	[redacted] Bells and all about them, ..	Lon. '93	Do.	1
33	A [redacted] to [redacted] Lighting, ..	Lon. '95	Do.	1
34	How [redacted] the Dynamo, ..	Lon.	Do.	1
35	Electric Engineering ..	Lon. '96	Joyce, E.	1
36	Treasure [redacted] Electro-Metallurgy, ..	Lon. '96	McMillan, W. G.	1
38	The [redacted] of Machinery for [redacted] .. Engineering Works, ..	Chet. '79	Matheson, [redacted]	1
39	Machinery and Appliances used in En- gineering Work, ..	Chet. '86	Hill, Woodman. { Mitchell, O. F. { Davey, E. G.	1
38	Forty Lessons [redacted] Engineering Work- shop Practice, ..	Lon. [redacted]		1
G S				
34	Hydraulic Machinery, ..	Chet. '80	Anderson, W.	1
35	Pumps and Pump Motors (Text [redacted] [redacted]) ..	Lon. '94	Bjorling, P. [redacted]	2
36	Plant and [redacted] locally for the Kisumu Bridge, Calcutta ..		Spring, F. J. [redacted]	1
G				
35	[redacted] Floors, ..		Young, C. L.	1
36	Notes on Joinery, Doors and Windows, ..	Chet. [redacted]	Clayton, A. G.	1
37	The Carpenter and Joiner, ..	Lon. [redacted]	Burn, R. B.	1
38	Woodwork, Carpentry and Joinery, ..	Lon.	Sammonds, T. C.	1
39	Carpentry and Joinery, 6th Edition, ..	Lon.	Wilson, J.	1
30	Manual [redacted] Instruction in Woodwork, ..	Lon.	Wood, G.	1
31	Forty Lessons in Carpentry Work- shop Practice, ..	Lon. [redacted]	{ Mitchell, O. F. { [redacted] G. A.	1
G n				
30	Surveying Manual, 2nd Edition, (2nd copy), ..	Roor. '71	Firebrace, F.	1
31	Manual of Surveying, ..	Lon.	Flower, L.	1
32	[redacted] of Land Surveying, ..	Cal. [redacted]		1
33	Surveying [redacted] Levelling for [redacted] [redacted], ..	Mad. [redacted]	D'Cruz, J. E. A.	1

Libr. No.	Title of Book.	Where published and year	Author.	No. of Vols.
G w				
21	Problems in Adjustment of Gauging Instruments, ..	Lon. '88	Webb, W. L.	1
G z				
25	..... of Estimating, .. Edition, .	Roe. '88	{ Kesy, P. Sullivan, G. O.	1
29-1	Laxton's Price-book for Builders, &c., for 1886, ..	Lon.	Saxton, W.	1
49	Spon's Architects and Builders' Price-book,	Lon. '88	Young, W.	1
G y				
4-1	Elementary of Engineering, ..	Lon. '88	Mahan, D. H.	1
10	Treatise on Civil Engineering, Vol. I, .. Edition, (3rd copy), ..	Roe. '73	Medley, J. G.	1
19	..... of Formula, Tables, &c., ..	Lon. '95	Hurst, J. T.	1
G z				
4	..... for Engineers, ..	Roe. '73	Addis, W. J.	1
H a				
.....	..... Series, (3 copies), Architecture, and Modern, .	Cal. '88	Govt. of India. Smith, T. B.	2 1
108	Churches of the 17th and 18th Centuries,	Lon. '88	{ Jones, J. Wren, Sir C. Hawkenoor, N. Gibbs, J.	1
109	Photographs and Drawings of Historical Buildings in India, ..	Lon. '95	{ Gregg, W. Govt. of India.	1
H b				
23	Plans Drawing, ..	Lon. '88	Harris, ..	1
23	..... of Drawing, .	Lon. '88	Walcock, H.	1
24	Drawing Rough Sketching for	Lon.	Donaldson, J.	1
.....				
.....	Royal Academy Pictures, 1896, ..	Lon.		1
.....	Japanese Illustrations, Wood-cutting and painting, ..	Lon.	Strange, E. F.	1

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33	Photographic Salon, 1895, ..	Lon. '95	Colls, W. L.	1
34	Photographic Salon 1896, ..		{ Anthony, H. and H. T.	1
35	Process Year Book for 1896, ..	Lon.	Penrose and Co.	1
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